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Bulletin of the Museum of Comparative Zoology at Harvard College.

Cambridge, Mass. :The Museum,1863-

<http://www.biodiversitylibrary.org/bibliography/2803>

v.153 (1992-1994): <http://www.biodiversitylibrary.org/item/25331>

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THE NEOTROPICAL ORB-WEAVING SPIDERS OF THE GENERA *WIXIA*, *POZONIA*, AND *OCREPEIRA* (ARANEAE: ARANEIDAE)

HERBERT W. LEVI¹

ABSTRACT. The species previously placed in *Wixia* fall into three distinct genera: *Wixia*, *Pozonia*, and *Ocrepeira*. *Wixia* is known from only one pair of adults collected recently and the holotype collected in the last century, and several immatures, all from the Amazon region. Three species of *Pozonia*, all previously known, are distributed from Mexico and the West Indies to Paraguay. *Ocrepeira* contains 67 species, two north of Mexico and 65 from Mexico to Argentina and Chile. Forty-six of the *Ocrepeira* species are new (70% of the species) while 18 (30%) were previously known. There are eight new synonyms of the 18 previously known names. Two North American species of *Wixia* are transferred to *Ocrepeira*.

The species of the three genera differ in the shape of the carapace and the abdomen.

The few webs that are known, made by species of *Pozonia* and *Ocrepeira*, are complete orbs placed almost vertically.

INTRODUCTION

The family of araneid orb weavers, Araneidae, is the third largest spider family. The only larger ones are the jumping spiders (Salticidae) and the mainly Holarctic Linyphiidae. Comprehensive revisions and keys covering the whole Neotropics are not available for either of these families. Perhaps half of the Neotropical araneid orb weavers have now been revised. The first revisions of Neotropical species were made together with the Nearctic species: *Gea* and *Argiope* (Levi, 1968), *Neoscona* (Berman and Levi, 1971), and *Eriophora* (Levi, 1971). These will eventually be updated. The first revision of the Neotropical araneids was that of *Micrathena* and *Chaetacis* (Levi, 1985), followed by *Alpaida*

(Levi, 1988), *Witica* (Levi, 1986), *Epeiroides*, *Bertrana*, and *Amazonopeira* (Levi, 1989), *Araneus*, *Dubiepeira*, and *Aculepeira*, (Levi, 1991a), *Larinia* (Harrod *et al.*, 1991), *Edricus* and *Wagneriana* (Levi, 1991b), and *Parawixia* (Levi, 1992).

My goal has always been to make it possible to determine animals so that they can be used for research. When I started work, it was a longstanding tradition that systematists would determine animals for biologists in other fields. However, it seemed absurd to me that systematists spent their time identifying specimens, rather than working on revisions and making this knowledge directly available to these specialists. Revisions allow the identification of specimens and also provide a context for the naming of new species. Naming of new species should not be attempted before the genus has been revised and common species, named in the last century, illustrated and their variation noted.

When I started work, there were few spider specialists in North America. When Jocelyn Crane worked on the behavior of Venezuelan jumping spiders (1948), she first had to do the taxonomic work herself. At the same time, Kaston published *Spiders of Connecticut* (1948). This work showed the value of a clear text and good illustrations in taxonomic work. Spiders can readily be identified with short, well-illustrated descriptions such as these, but not with lengthy, elaborate descriptions accompanied by poor illustrations (for example, Petrunkevitch, 1925). Therefore, my descriptions of Neotropical orb weavers are accompanied by drawings of sev-

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eral views of the spider. To answer questions about my working and drawing methods for these revisions, a description is provided below.

MATERIALS AND ACKNOWLEDGMENTS

Specimens from the following collections were used whose curators I thank for making the material available.

AMNH	American Museum of Natural History, New York, United States; N. Platnick, L. Sorkin	MCN	Museu de Ciências Naturais, Porto Alegre, Rio Grande do Sul, Brazil; E. H. Buckup
BMNH	Natural History Museum, London, Great Britain; P. Hillyard, F. Wanless	MCZ	Museum of Comparative Zoology, Cambridge, Massachusetts, United States
CAS	California Academy of Sciences, San Francisco, California, United States; W. J. Pulawski, D. Ubick	MECN	Museo Ecuatoriano de Ciencias Naturales, Quito, Ecuador; L. Avilés
CUC	Cornell University Collection, kept in the AMNH; N. Platnick	MEG	M. E. Galiano, Buenos Aires, Argentina
CV	Carlos Valderrama A., Bogotá, Colombia	MHNM	Museo de Historia Natural de Montevideo, Uruguay; R. M. Capocasale
DAD	D. A. Dean, College Station, Texas, United States	MLJ	Maria-Luisa Jiménez, La Paz, Mexico
DU	D. Ubick, San Francisco, California, United States	MLP	Museo de Universidad Nacional, La Plata, Argentina; R. F. Arrozpide
FSCA	Florida State Collection of Arthropods, Gainesville, Florida, United States; G. B. Edwards	MNHN	Muséum National d'Histoire Naturelle, Paris, France; C. Rollard, J. Heurtault, J. Kovoov
HECO	Hope Entomology Collections, Oxford University, Oxford, Great Britain; D. Spencer-Smith, I. Lansbury	MNRJ	Museu Nacional, Rio de Janeiro, Brazil; A. Timotheo da Costa
IESC	Instituto de Ecología, Academia de Ciencias, Cuba; G. Alayón	MNSD	Museo Nacional de Historia Natural, Santo Domingo, Dominican Republic; F. Del Monte
IBNP	Inventario Biológico Nacional, San Lorenzo, Paraguay; J. A. Kochalka	MUSM	Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru; D. Silva D.
INPA	Instituto Nacional de Pesquisas da Amazonia, Manaus, Brazil; J. A. Raphael	MZSP	Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil; P. Vanzolini, L. Neme, J. L. M. Leme
IRSNB	Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium; L. Baert	MZUF	Museo Zoologico de la Specola, Università di Firenze, Florence, Italy; S. Mascherini
JAK	J. A. Kochalka	NMB	Naturhistorisches Museum, Basel, Switzerland; C. Stocker
JMM	J. M. Maes, León, Nicaragua	NRMS	Naturhistoriska Riksmuseet, Stockholm, Sweden; T. Kronesedt
MACN	Museo Argentino de Ciencias	PAN	Polska Akademia Nauk, Warszawa, Poland; A. Riedel, W. Starega, J. Prószyński, A. Słowicka, E. Kierych
		RLCB	Renner L. C. Baptista, São Paulo, Brazil

SMF	Forschungsinstitut Senckenberg, Frankfurt am Main, Germany; M. Grasshoff
USNM	National Museum of Natural History, Smithsonian Institution, Washington, D.C., United States; J. Coddington
ZMB	Zoologisches Museum der Humboldt Universität, Berlin, Germany; M. Moritz
ZMK	Zoologisk Museum, København, Denmark; H. Enghoff

I want to thank numerous individuals for helping. L. Leibensperger helped with various tasks including rewording the manuscript. L. R. Levi reworded sentences. D. Sherry word processed and assembled the paper. F. Boisse-Kilgo edited meticulously. M. A. Serna D. and E. H. Buckup provided locality information. R. Baptista, W. Eberhard, J. Kochalka, and Y. Lubin gave ecological and behavioral data. J. Prószyński supplied information on the Taczanowski collection. O. Kraus gave advice on a nomenclature problem. Various readers of previous manuscripts made suggestions to improve these papers and two anonymous readers suggested improvements and corrections in this paper. NSF grant GB-36161 supported the start of the revisions of *Wixia* and related genera. Publication costs of this study were covered in part by the Wetmore Colles Fund.

Equipment. 1. American Optical dissecting microscope with Greenough optics (ca. 1950) with $0.7\times$, $4\times$, and $8\times$ objectives. The $12\times$ ocular gives magnifications of $8.4\times$, $48\times$, and $96\times$. The right reticule has a 20 by 20 (400 square) grid. Other oculars available for higher magnification are $18\times$ and $30\times$.

2. Leitz dissecting microscope also with Greenough optics, $1\times$, $4\times$, and $10\times$ objectives and $15\times$, $25\times$, and $32\times$ oculars. In the reticule of the American Optical microscope, alternate rows of squares are numbered, which makes this reticule easier to use than the Leitz reticule with unnumbered squares.

3. Leitz Smith interference compound

microscope: used rarely for small genitalia. Used sometimes with reflected light provided by a fiber light system (a method first suggested by J. Coddington). The optics of a compound microscope are far superior to those of any dissecting microscope. The genitalia are in a depression slide covered with alcohol.

4. Dolan-Jenner Fiber Light (Series 180) with two arms, one lighting from the left, the other from the right. Both lights are used to see outlines; for shading and sculpturing illustrations, only the left is used.

Containers. 1. Syracuse watch glasses (with grooved and beveled edges for stacking) are used for preliminary examination of specimens. I prefer them with ground rims so they can be stacked.

2. Stender glass dishes (22 mm deep, 52 mm inside diameter) with ground glass lids are used for detailed examination and illustration. One Stender dish is filled to one-quarter depth with light-colored washed sand, another with black silicon carbide (Carborundum, B. Opell, 1983), lapidary grade, 80 grit size. A third dish is filled on one side with white paraffin and on the other with black paraffin (made by blackening paraffin with lampblack). When making the dish, a temporary cardboard divider keeps the hot paraffin from mixing and is removed when it solidifies. While the paraffin is soft, depressions of various sizes are made, some in the black-white border.

Art Materials. 1. Papers. Tracing paper (letter-size onion skin), coquille board no. 3, two-ply Strathmore board, for line illustrations and Bainbridge board (38 by 51 cm) for mounting illustrations. The sculptured coquille board, which used to be used widely for illustrations of newspaper advertisements, is increasingly difficult to find in art stores and in consistent quality, whiteness, and evenness of texture.

2. Drawing Supplies. Rapidograph or other technical pen, sizes 000 (0.25 mm), 00 (0.3 mm), 2, 3, and 4. Black India ink: Rapidograph or Pelikan drawing ink A. Opaque white water paint (Steig's Pro-White). Good quality no. 2 pencils. Wil-

liam Corn's lithographic crayons in pencil shape no. 3, 4, and 5. Black Staedtler Omnichrom pencils that can be sharpened (first suggested by R. Forster). Sandpaper for sharpening crayons. Camel-hair brushes, sizes 1, 00, 000. Crow-quill pen tip and holder and a desk fluorescent light having a magnifying lens.

3. Cards approximately 13 by 20 cm. Each card is gridded into squares of a given size: 5, 6, or 7 mm etc., up to 15, 18, 21, and 25 mm. Grids are drawn with no. 00 Rapidograph pens.

4. Fixative: Krylon no. 1303 Crystal Clear Spray or Krylon no. 1306, Workable Fixative.

5. 3M Scotch Positional Mounting Adhesive rolls for mounting illustrations on Bainbridge board.

Illustrations. In males, the left palpus is amputated (and stored in a 2 by 6 mm vial stoppered with cotton). In females, the epigynum is left attached, but pulled out slightly with a needle for examination of posterior and lateral views.

The following conventions are used in making illustrations. The illumination comes from the upper left. The anterior end of the animal is placed toward the top of the page, the posterior end toward the bottom. In side view, the head is on the left, the tail end on the right. The left side and the structures are illustrated. In illustrating epigyna and palpi, I modify the convention to ease visualization of structures, e.g., in posterior view of the epigynum, the venter is up, the dorsum is down as you would expect if you flipped it over.

A grid card is selected so as to produce a finished illustration of 6 to 9 cm in size, about 2 to 3 times the published size. The card grid corresponds to the microscope reticule grid. A piece of tracing paper is folded in half and placed over the grid card. The pencil outline is drawn on the tracing paper. If the illustration is symmetrical, only half of the structure need be drawn; the drawing can be folded and the other half traced. Great care is required when folding to avoid distortion.

When the outline is completed, the back of the tracing paper is blackened by rubbing with a graphite pencil. The paper is put blackened-side down on a piece of Coquille board. Tracing the outline with a sharp graphite pencil transfers it to the board. Care must be taken not to dent the texture of the board.

The outline is corrected with pencil while referring to the specimen. The outline is then inked with a no. 00 Rapidograph pen, with the help of a magnifying glass under a fluorescent light. The inked outline is placed next to the microscope for completion. No. 3 and 4 Rapidograph pens are used to blacken totally the darkest areas. Cleaning brushes used for this purpose is time-consuming. The white of the reflections, the lightest areas, is surrounded lightly with Omnichrome pencil. Dimmer areas are shaded in with no. 4 lithographic crayon and Omnichrome pencils, darker areas with softer crayons. Fine white lines are made around sclerites with water color white. A camel-hair brush is used, drawn to a point by lightly twisting the wet point while touching paper. There may be problems differentiating transparent areas and borders of sclerites; for example, palpal structures close to the cymbium may be obscured by long cymbial setae. The palpus (or other structure) should be turned slightly and compared with the drawing to make sure the shape of the sclerites is correct. The palpus should be pulled apart only if many specimens are available.

The illustration is cleaned under the magnifying light. Areas covered by lithographic pencil are difficult to correct: small white dots can be made to make dark areas lighter, or some black can be lifted up with 3M Scotch Magic Tape (a G. Hormiga invention). When completed, the illustration is sprayed with artist's fixative and later mounted on Bainbridge board. After mounting, the illustrations are individually numbered with a Rapidograph lettering set. Illustrating techniques are described in some detail in Zweifel (1988) and Hodges (1988).

Line illustrations are made on smooth Strathmore board, 2 to 3 times larger than the coquille illustrations, and are reduced to the desired size by photocopying. The photocopies are mounted with the coquille illustrations.

When illustrating and measuring, one is faced with a dilemma between pulling the specimen apart in order to be highly accurate or measuring less accurately and leaving the specimen intact for the next study. It is usually preferable to avoid damaging the specimen. Genitalia or other parts are never left on microscope slides. If a structure such as the female genitalia must be cleared with Hoyer's Medium (Krantz, 1970) and mounted between two large coverslips, they are taken off afterward and the structure is stored in a small vial with the rest of the specimen.

Type specimens. The original specimens, the types of early describers, are often not labeled as such. The concept of a holotype to which the species name is attached was not applied until early this century. The type method is quite recent, appearing after 1850. The original Code of Nomenclature of 1901 had no directions for types (Mayr, 1969; Mayr and Ashcroft, 1991). Often it is not known if the specimens examined and labeled as types are really the original specimens. The labeling of specimens as types of the Emerton collection in the MCZ was done by E. B. Bryant, not by Emerton. The American specimens of Taczanowski at the Polish Academy of Science had only numbers that were matched to notebooks in the 1930's by Zolzislav Raabe, who later became professor at the university in Warszawa; Raabe could not locate all specimens and some file cards indicate missing specimens (J. Prószyński, personal communication). Eugène Simon, and perhaps also N. Banks, placed additional spiders into the vials that contained the original specimens, sometimes of similar but different species. In the British Museum, many neat, inked labels of O. P.- and F. O. P.-Cambridge were made by E. Browning and others.

Lectotypes here are only designated when a mixture of species is suspected among the syntypes. Neotypes are designated only where essential to avoid later confusion. In previous revisions all adult specimens examined for the revision were designated as paratypes. In this paper only specimens from the type locality or nearby are designated as such.

Descriptions. Descriptions are made following a standard format. An outline to be filled in later is in the computer. Notation of colors: white on the carapace and sternum in these araneid genera is usually a result of pigment granules under the exoskeleton. Fine black pigment spots are referred to as dusky. Eye measurements are expressed as ratios of the diameter (with cornea in profile) to that of the anterior median eyes (Figs. 27, 28). Distances between eyes of the anterior row are expressed as diameters of the anterior median eyes (in profile); distances between eyes of the posterior row are given as diameters of the posterior median eyes. The height of the clypeus, the distance between anterior median eyes and the edge of the carapace, is given in diameters of an anterior median eye and measured below the eye (Fig. 28f). These measurements are approximate as araneid eyes are quite variable and difficult to measure; often one side is slightly different from the other. Grasshoff (1968) discusses some of the difficulties in measuring araneid spiders and their eyes.

Other measurements are made using the ocular reticule with 400 squares and, while accurate to about one-tenth of a millimeter, the measurements must be regarded as approximate for several reasons. The total length of the specimen depends on the angle of the abdomen to the carapace. In *Wixia*, *Pozonia*, and *Ocrepeira* the abdomen is at an angle to the cephalothorax (Fig. 40). A slight dorsal pressure makes the animal longer. [Often, as in *Ocrepeira* (Fig. 44), when illustrating the abdomen the carapace is pushed slightly down to make the abdomen more level to better

show the pattern.] Measuring carapace length cannot be done accurately without removing the abdomen, which usually covers the posterior of the thoracic region. To avoid amputation, the measurement of carapace length (Fig. 27) is best made with the specimen on sand and viewed at an angle, but the legs may obscure the view. The width of the carapace is measured at the widest part (Fig. 27), and the measurement is more accurate in specimens having a sclerotized carapace. If the carapace is soft it may be warped. In the group of genera studied here, the width of the cephalic region is measured directly behind the posterior lateral eyes (Fig. 27). However, if the longest setae of the carapace are behind the lateral eyes, they interfere with very accurate measurement. The leg articles are measured along their dorsal length; as they are not amputated and placed on a horizontal slide, there may be small errors due to parallax.

Illustrations, descriptions, and measurements were made from one specimen, and photocopies of all illustrations are kept. A more sclerotized or a softer specimen may show features not visible in other specimens. If there is considerable variation, additional illustrations are made. Notes on variation in color, pattern, or morphology are recorded on a second sheet for records and collections. Also noted on this sheet are the total lengths of about 10 females and 10 males from different localities. Total length is helpful for determining spiders, although less consistent than the length of the leg articles (see also Levi, 1985).

When only a few specimens are available, it is difficult to decide whether some small variation actually means that the specimen belongs to a different species. I expect a separate species to exhibit not only consistent differences in genitalia, but also in color or morphology, and show similar differences in the opposite sex. Nevertheless, even with care, lumping or splitting mistakes are unavoidable.

Mapping. Our own outline maps are used and photocopied to reduce their size.

The dots are transfer dots; labeling of maps is done with a Kroy machine. The most valuable references for finding old Neotropical localities are Selander and Vaurie (1962) for Mexico and Central America, and the collection of gazetteers of Neotropical bird collecting localities by R. Paynter (1975–1991). [Several collectors of South American spiders specialized in birds as well as spiders: K. Jelski and J. Sztolcman (who collected for L. Taczanowski), E. Goeldi (who collected for E. Simon), and Graf Keyserling, E. Simon himself, and more recently, H. Sick (Levi, 1964).] Other localities cited in the Paynter gazetteers were collecting localities frequented by collectors of various animals in the 19th century. Modern automobile maps of individual countries, especially those with gazetteers, are useful and available from map stores. Automobile maps are available for individual Mexican states and for separate regions of Argentina.

Literature citations of collection records are ignored since too many specimens in collections are misidentified.

Systematics of Neotropical orb weavers. It is not possible to estimate the number of araneid orb-weaver species based on our current knowledge. (While I anticipated about twenty species in the genus *Wixia*, the collections had close to 70 species and actually fell clearly into three genera.) The phylogenetic relationships among the orb weavers are currently unknown but certain features could turn out to be conclusive. The paramedian apophysis may be absent, present as a separate sclerite, or fused to the conductor. In *Wixia*, *Pozonia*, and *Ocrepeira*, the presence of a paramedian apophysis attached to the conductor in the male palpus (Figs. 23, 32, 46, 47) may indicate that they are related. Other genera of the Neotropics whose males have a paramedian apophysis attached to the conductor are: *Acacesia*, *Alpaida*, *Cyclosa*, *Edricus*, *Molinaranea*, *Parawixia*, *Scoloderus*, *Verrucosa*, *Wagneriana*, and *Xylethrus*. Others probably have not been examined or their males are not known. In *Eriophora*, *Gasteracantha*

cancriformis, and *Acanthepeira* the paramedian apophysis is a separate sclerite. Some *Micrathena* species have a paramedian apophysis attached to the conductor, others a free sclerite, others lack this structure (*M. funebris*, *M. sagittata*, *M. gracilis*, Levi, 1985): apparently it is secondarily lost. But is absence of the paramedian apophysis in other genera due to secondary loss or did they never evolve this structure? Of the genera that have a paramedian apophysis, *Molinaranea* and *Xylethrus* have not been revised. A. A. Lise is currently revising *Verrucosa*. Most of these genera are American. *Parawixia* may also be found in Australia, and only *Cyclosa* species are found worldwide (see Table 1).

Other characters that support this grouping are: the positions of the conductor in the palpus, the attachment of the median apophysis, the number of patellar setae, the structure of the epigynum, and the frequent median, posterior (row of) tubercles on the abdomen in the *Alpaida* group of genera (but not in *Ocrepeira*).

The conductor is on the edge of the tegulum in *Araneus* (Levi, 1991a, fig. 3) and in *Larinia* (Harrod *et al.*, 1991, fig. 15), while in the *Ocrepeira* and *Alpaida* group of genera it is attached to the center of the bulb, away from the edge, closer to the cymbium (Figs. 23, 32). The median apophysis, whose attachment is offset behind the sclerite in *Araneus* (Levi, 1991a, fig. 3) and *Larinia* (Harrod *et al.*, 1991, figs. 14, 15), is on the side of the sclerite in the *Ocrepeira*, *Alpaida* group of genera (Figs. 23, 32). While most average-sized species of the *Araneus*, *Larinia* group have 2 palpal patellar setae, there is only one in the *Ocrepeira*, *Alpaida* group. [However, dwarf males of *Kaira* lack these setae, and giant males of *Eriophora* (allied to *Alpaida*) have two. The smallest *Eriophora* male, *E. nephiloides* O. P.-Cambridge, and the largest of the *Parawixia* species, *P. bistrata* Rengger, have one large macroseta and one small.]

The scape of the epigynum has evolved numerous times in various araneoid fam-

ilies. In *Araneus* it has a pocket at its tip (Levi, 1991a, fig. 1). In *Larinia* this pocket may be behind a thick lip (Harrod *et al.*, 1991, fig. 1). In *Aculepeira* (allied to *Araneus*) the tip is pointed (Levi, 1991a, fig. 543). It rarely, if ever, has a pocket in *Eriophora*, *Parawixia*, and *Ocrepeira* (Figs. 7, 29); if flat and rounded, it may have a plain, ventral depression at the tip.

At present, it is still too early to assess whether further evidence will agree or conflict with these characters.

Wixia O. P.-Cambridge

Wixia O. P.-Cambridge, 1882: 437. Type species by monotypy *Wixia abdominalis* O. P.-Cambridge. The generic name is feminine.

Diagnosis. *Wixia* differs from most araneid genera by having the pedicel attached to the posterior third of the abdomen (Fig. 4b). It differs from *Pozonia* and *Ocrepeira* by having the carapace high and the clypeus about 2 to 4 diameters of the anterior median eyes, and from *Pozonia* by the cephalic region being almost as wide as the thoracic region (Figs. 4 a-c, 6). It differs from *Scoloderus* by having the thoracic region only slightly higher than the cephalic region (Fig. 4b).

Relationship. The shape of the carapace is an apomorphy, the swollen posterior median eye area and the palpal structure are synapomorphies shared with *Ocrepeira* and *Pozonia*, and the shape of the abdomen is a synapomorphy with *Pozonia*.

Description. The posterior median eyes face almost to the sides, being on a joint swelling (Figs. 4, 6). The first patella and tibia are as long as the carapace (Figs. 5, 6). The abdomen is anteriorly drawn out in both sexes, the female with two tubercles on its anterior tip (Figs. 4, 6). The epigynum appears to be as in *Ocrepeira* or *Pozonia* (Figs. 1-3).

The male is smaller than the female and similar in appearance (Fig. 6). Its endite has a tooth, the first coxa has a hook (Fig. 6), the palpal patella one macroseta (Fig. 6). The palpus (Figs. 5a,b) is *Ocrepeira*-like with a large median apophysis (M), a

TABLE 1. (CONTINUED)

	PARW	ERIO	ACAN	WAGN	EDRI	ACAC	ALPA	WIXI	POZO	OCRE	CYCL (prov.)	SCOL (prov.)
Male Morphology												
ceph. reg. wide	-	-	[+]	-	+	-	-	-	-	-	-	+
hook on coxa I	+	+	-	+	+	+	+	+	+	+	+	+
macrosetae on coxa III, IV	+	+	+	+	-	+	+	+	-	+	+	-
trochanter IV macrosetae	+	+	-	-	+	-	-	+	-	-	-	-
tibia II modified	-	-	-	-	+	+	-	+	-	-	-	+
Palpus												
much wider than long	-	-	-	-	/	-	-	-	-	-	[+]	-
patella macrosetae	1**	[2**]	1	1	1	1	1*	1	1	1	1	1
Y narrow	-	[+]	-	-	-	-	-	-	-	-	-	-
Y covers PM	-	-	[+]	-	-	-	-	-	-	-	-	-
PM absent	-	-	-	-	-	-	-	-	-	-	-	+
PM free	-	+	+	-	-	-	-	-	-	-	-	-
PM stalk and ap	-	-	-	-	+	-	+	-	-	-	+	-
PM L- or U-shaped	-	-	-	[+]	-	-	-	-	-	-	+	-
PM disk with finger	+	+	-	-	-	-	-	-	-	-	-	-
PM disk with fold	-	-	[+]	-	-	-	-	-	-	-	-	-
PM a prong	-	-	-	-	-	+	-	+	+	+	+	-
M with base teeth	+	+	-	+	-	-	-	-	+	+	-	-
M with projection to Y	-	-	-	-	-	-	[+]	-	-	-	-	-
base of M with concavity	+	+	-	-	-	-	-	-	-	-	-	+
base of M stalk with knob	-	-	-	-	-	-	+	-	-	-	-	-
long "stipes"	-	[+]	-	-	-	-	-	-	-	-	-	-
E cone-, bullet-shaped	+	-	-	-	+	-	-	-	-	-	-	-
E knife-shaped	-	-	-	-	-	-	[+*]	-	-	-	-	-
E razor clam-shaped	-	-	[+]	-	-	-	-	-	-	-	-	-
E filiform	-	-	-	-	-	-	-	-	-	-	[+]	-
A absent	-	-	[+]	-	-	-	-	-	-	-	-	-
A fused with embolus	-	-	-	+	+	-	+	+	+	+	+	+
A fused with R	-	-	-	+	+	-	+	-	-	-	-	-
R with an outgrowth	-	-	-	-	-	-	-	-	-	[+*]	-	-

* There are exceptions.

** *P. bistrata* and *E. nephiloides* (Levi, 1971) have a large macroseta and a smaller one on the male palpal patella.

Bracketed characters are autapomorphies for the genus.

Abbreviations: abd., abdomen; ant., anterior; betw., between; carap., carapace; ceph., cephalic; med., median; post., posterior(ly); prov., provisionally; rect., rectangle; reg., region; tuber(s), tubercle(s); v., venter; A, terminal apophysis; E, embolus; LE, lateral eyes; M, median apophysis; ME, median eyes; PM, paramedian apophysis; PME, posterior median eyes; R, radix; Y, cymbium.



Map 1. Distribution of *Wixia abdominalis*.

light-colored conductor (C) with a prong-like paramedian apophysis (PM) with its tip tucked under the radix (R).

Misplaced North American Species.

Wixia ectypa (Walckenaer, 1841) = *Ocrepeira ectypa* (Walckenaer).

Wixia georgia (Levi, 1976) = *Ocrepeira georgia* (Levi). NEW COMBINATION.

Misplaced species. The following species have been misplaced in *Wixia*, other than those placed here in *Pozonia* and *Ocrepeira*:

acrosomoides (Mello-Leitão, 1939: 109), is *Wagneriana acrosomoides*, see Levi, 1991b: 404.

albotaeniata Mello-Leitão, 1942: 403, is *Alpaida rubellula* (Keyserling, 1892), see Levi, 1988: 395.

dstricta (O. P.-Cambridge, 1889: 39) is a *Parawixia* not *Wixia* as thought in Levi, 1991a: 179.

fissifasciata Mello-Leitão, 1945: 244, is *Alpaida bicornuta* (Taczanowski), see Levi, 1988: 387.

gavensis Camargo, 1950: 231, is *Wagneriana gavensis* (Camargo), see Levi, 1991b.

infelix Soares and Camargo, 1948: 378, fig. 35, ♂, is a *Mecynogea*.

nigropunctata Mello-Leitão, 1941: 214, is *Alpaida rubellula* (Keyserling, 1892), see Levi, 1988: 395.

rubellula (Keyserling, 1892: 81), is *Alpaida rubellula* (Keyserling, 1892).

tatarendensis (Tullgren, 1905: 34) belongs to a new genus, close to *Wixia*.

Unrecognizable Species.

proxima Mello-Leitão, 1940: 207, type specimens lost.

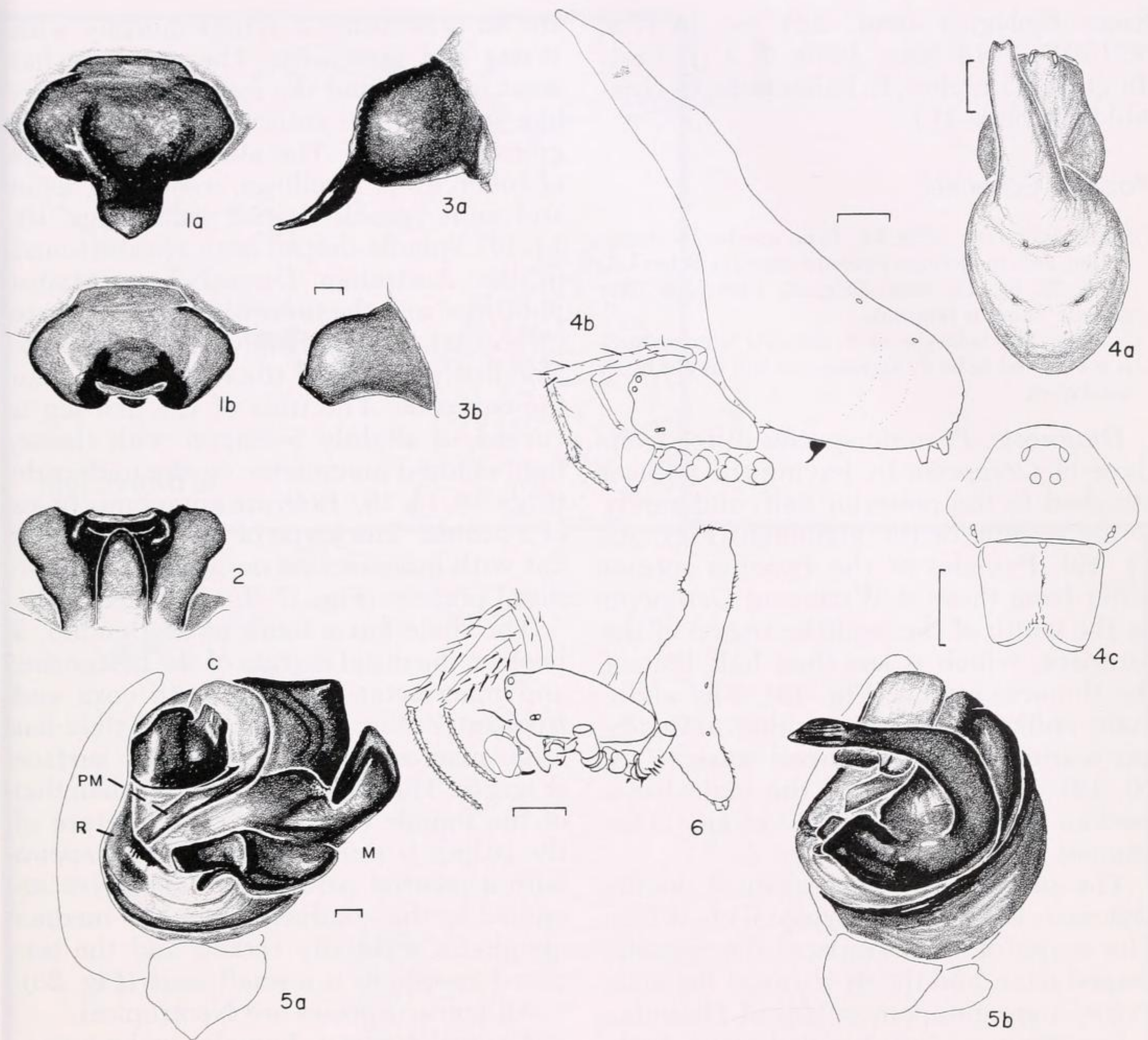
Wixia abdominalis O. P.-Cambridge

Figures 1–6; Map 1

Wixia abdominalis O. P.-Cambridge, 1882: 438, pl. 31, fig. 13, ♀. Female holotype from "the Amazon," in HECO, examined. Roewer, 1942: 881. Bonnet, 1959: 4828.

Description. Female holotype. Carapace orange-brown with short setae. Chelicerae, labium, endites, sternum, legs orange-brown. Dorsum of abdomen white with some dusky marks (Fig. 4a); venter dusky. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes two diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 3.5 diameters of anterior median eyes. There is a tooth on the anterior margin of the chelicera, on each side of which is a smaller one. Abdomen drawn out anteriorly with two points (Figs. 4a,b). Total length 5.4 mm. Carapace 3.1 mm long, 2.3 wide, 1.9 wide behind eyes, 1.6 high in thoracic region. Abdomen 8.8 mm long. First femur 2.7 mm, patella and tibia 3.1 mm, metatarsus 2.0 mm, tarsus 0.9 mm. Second patella and tibia 3.1 mm, third 1.8 mm, fourth 2.5 mm.

Male. Coloration darker than female with yellow-orange and dark patches posteriorly on each side of carapace. Legs with dark rings, abdomen spotted with venter black. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes 1.4 diameters apart. The abdomen has a bulge anteriorly on the underside (Fig. 6). The fourth coxa has a macroseta on a tubercle, the fourth trochanter has a macroseta. There is a large, long macroseta on a tubercle at the proximal end of the second femur and several macrosetae at the proximal end of the fourth femur (Fig. 6). The second tibia is



Figures 1-6. *Wixia abdominalis* (O. P.-Cambridge). 1-4, female. 1-3, epigynum. 1a, ventral with scape. 1b, ventral, scape torn off. 2, posterior. 3a, lateral with scape. 3b, lateral, scape torn off. 4a, dorsal. 4b, lateral. 4c, eye region and chelicerae. 1b, 2, 3b, 4a, 4c, holotype. 5, 6, male. 5, left male palpus. 5a, mesal. 5b, ventral. 6, lateral.

Abbreviations. C, conductor; M, median apophysis; PM, paramedian apophysis; R, radix.

Scale lines. 1.0 mm, genitalia 0.1 mm.

proximally swollen with several long macrosetae (Fig. 6). Total length 5.5 mm. Carapace 3.4 mm long, 2.9 wide, 1.8 mm wide behind eyes, 1.6 mm high in thoracic region. Abdomen 6.2 mm. First femur 3.2 mm, patella and tibiae 3.8 mm, metatarsus 2.4 mm, tarsus 0.9 mm. Second patella and tibia 2.9 mm, third 1.9 mm, fourth 2.7 mm.

Variation. The second female collected was 7.5 mm total length, abdomen 14 mm

high (Fig. 4b). It was collected with the male after completion of the revision and its illustration was added before printing.

Specimens Examined. GUYANA Kuyuwini Landing, Kuyuwini River, 20-21 Nov. 1937, imm. (W. G. Hassler, AMNH). BRAZIL *Goiás*: Porteria, Pirenópolis, 20 July 1942, imm. (F. Lane, MZSP 8023); Jaraguá, 12 July 1942, imm. (F. Lane, MZSP 7273); Fazenda Aceiro [?], Oct. 1962, imm. male (MZSP 7864). BOLIVIA Beni:

Estac Biológica Beni, 225 m, 14°47'S, 66°15'W, 8–14 Nov. 1989, ♀, ♂ (J. Codrington, S. Larcher, E. Pañaranda, C. Griswold, D. Silva D.).

Pozonia Schenkel

Pozonia Schenkel, 1953: 24. Type species by designation and monotypy *Pozonia cornuta* Schenkel, 1953: 25, fig. 23, imm. Brignoli, 1983: 279. The generic name is feminine.

Note. The holotype of *P. cornuta* is immature. It is believed to be *P. nigroventris* but might be *P. bacillifera*.

Diagnosis. *Pozonia* species differ from those of *Ocrepeira* by having the pedicel attached to the posterior half, and rarely to the middle of the abdomen (Figs. 10, 14, 19). Females of the *Pozonia* species differ from those of *Wixia* and *Ocrepeira* by the width of the cephalic region of the carapace, which is less than half that of the thoracic region (Fig. 18). The abdomen, unlike that of most other araneids, has scattered spindle-shaped setae (Figs. 10, 19). The sternum of the male has a median tubercle, unlike that of any other araneid male (Fig. 25).

The placement of the pedicel on the abdomen is a synapomorphy with *Wixia*. The shape of the carapace, the spindle-shaped setae, and the structure of the male sternum are autapomorphies of *Pozonia*.

Specimens of *Pozonia* had erroneously been placed in *Kaira*. *Kaira* has the posterior median eyes facing straight up, while those of *Pozonia* are on a bulge and face at an angle, forward and sideways (Figs. 19, 24). *Kaira* has a minute, slightly sclerotized epigynum with a median keel; the epigynum of *Pozonia* is large and sclerotized, with a scape (Figs. 7–9, 11–13, 15–17). The male of *Kaira* is minute and has a median apophysis with denticles and two flagella; the median apophysis of *Pozonia* is relatively large, bearing two prongs distally (Fig. 23), and the palpus has a paramedian apophysis, which is absent in *Kaira*.

Description. The carapace is higher in the thoracic region than in the cephalic region (Figs. 10, 14, 19). The posterior median eyes face forward and laterally and

are on a swelling, a synapomorphy with *Wixia* and *Ocrepeira*. The carapace has short setae behind the eyes and long hair-like setae on the anterior of the thoracic groove (Fig. 18). The abdomen has pairs of tubercles or swellings, some long setae and some spindle-shaped setae (Figs. 10, 14, 19). Spindle-shaped setae are also found in the Australian *Dicrostichus* (Mastophorinae) and the theridiid genus *Chryso* (*Meotipa*) and are believed a homoplasy. The first patella and tibia are longer than the carapace. The tibia of the first leg is curved or slightly S-shaped with dense, light-colored macrosetae on the underside (Figs. 10, 14, 19). Both are autapomorphies of *Pozonia*. The scape of the epigynum is flat with indistinct or no wrinkles and no distal pockets (Figs. 7–9, 11–13, 15–17).

The male has a tooth on the endite, a hook on the distal margin of the first coxae, and macrosetae on the fourth coxa and trochanter (Fig. 25). The second tibia has large macrosetae on the anterior surface (Fig. 26). The abdomen is shorter than that of the female (Fig. 24). The structure of the palpus is similar to that of *Ocrepeira* with a pointed paramedian apophysis attached to the conductor, but the median apophysis is distally forked and the terminal apophysis is a small scale (Fig. 23).

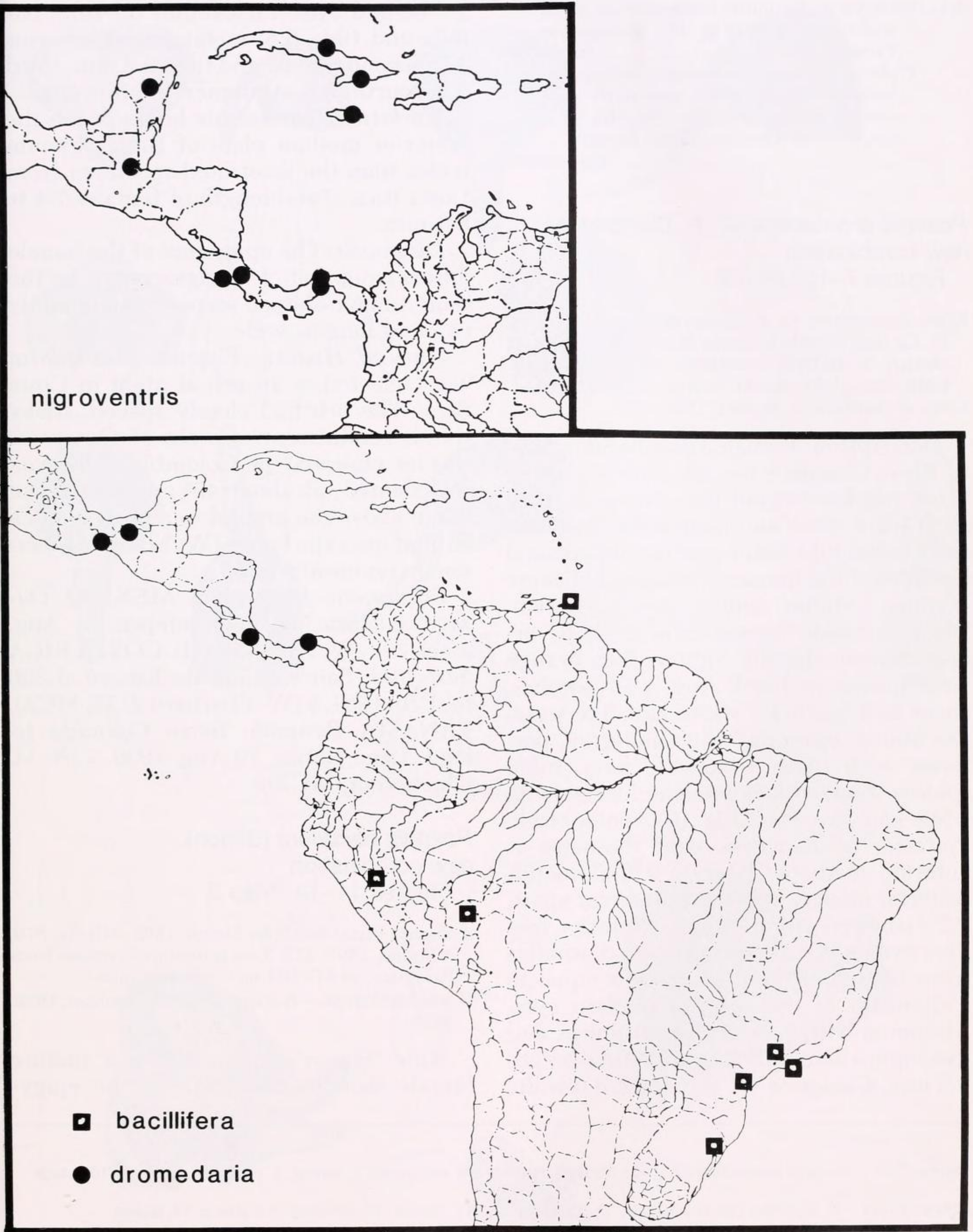
All known species are Neotropical.

Natural History. Females make a nocturnal orb web (*P. dromedaria*) and are probably found in the canopy (*P. nigroventris*). The web illustrated by Eberhard (1986, p. 74, fig. 4.2i), as *Wixia* "species 573," is that of an immature *Pozonia* from Cali, Colombia, total length 5 mm, abdomen, 4.7 mm high. The plane of its orb web was at a 90° angle with the horizontal plane, the orb having a 7 cm horizontal diameter, 8.8 cm vertical.

Immature specimens are fairly common in collections, but adults are not.

KEY TO *POZONIA* FEMALES

1. Scape of epigynum short, less than twice as long as wide (Figs. 7, 9); Mexico, Central America *dromedaria*
- Scape longer, more than twice as long as wide (Figs. 11, 15) 2



Map 2. Distribution of *Pozonia* species.

- 2(1). Posterior median plate bottle-shaped, much wider than long (Fig. 12); Trinidad to Paraguay *bacillifera*
 - Posterior median plate roughly hexagonal, four margins concave, posteriorly narrower than lateral plates (Fig. 16); Mexico, Central America, Cuba, Jamaica *nigroventris*

Pozonia dromedaria (O. P.-Cambridge),
 new combination

Figures 7-10; Map 2

Kaira dromedaria O. P.-Cambridge, 1893: 115, pl. 14, fig. 9, ♀. Female holotype from Teapa, Tabasco, Mexico, in BMNH, examined. F. P.-Cambridge, 1904: 522, pl. 51, fig. 11, ♀. Roewer, 1942: 904.

Caira dromedaria:—Bonnet, 1956: 925.

Description. Female from Escazu, Costa Rica. Carapace orange with a pair of black patches behind the eyes with some short black setae and long, white hair-like setae behind the black patches and around the sides of the thoracic region. Chelicerae orange. Labium, endites orange-brown. Sternum bright orange-brown. Coxae orange-brown, distally lighter; legs orange with brown to black rings and patches, coxae and legs with white hair-like setae. Dorsum of abdomen white and gray, posterior with black transverse bars, some spindle-shaped black setae and some long, white hair-like setae (Fig. 10); venter black. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart, 2.2 diameters from laterals. Posterior median eyes 1.5 diameters apart, 3 diameters from laterals. Height of clypeus equal to 1 diameter of the anterior median eyes. Abdomen with pair of dorsal humps and five humps in middle (Fig. 10). Total length 8.3 mm. Carapace 4.7 mm long, 4.0 wide,

1.7 behind eyes. First femur 5.7 mm, patella and tibia 6.8, metatarsus 3.6, tarsus 1.7. Second patella and tibia 6.2 mm, third 3.9, fourth, 5.8. Abdomen 9.6 mm high.

Variation. The female holotype has the posterior median plate of the epigynum wider than the illustrated specimen from Costa Rica. Total length of females 7.4 to 8.3 mm.

Diagnosis. The epigynum of the female differs from that of *P. nigroventris* by the short, tongue-shaped scape which is barely twice as long as wide.

Natural History. *Pozonia dromedaria* was collected in an orb at night in Costa Rica. The orb had closely spaced, sticky spirals reminiscent of webs of *Ocrepeira* species observed in Colombia. The web was slanted, at about 45° and was about 2.5 m above the ground in relatively open habitat near the house (W. Eberhard, personal communication.)

Specimens Examined. MEXICO *Oaxaca*: 3.2 km NE Tehuantepec, 31 Aug. 1964, ♀ (J., W. Ivie, AMNH). COSTA RICA *San José*: San Antonio de Escazu, 1,300 m, Feb. 1981, ♀ (W. Eberhard 2177, MCZ). PANAMA *Panamá*: Barro Colorado Island, Lago Gatún, 19 Aug. 1939, ♀ (A. M. Chickering, MCZ).

Pozonia bacillifera (Simon),
 new combination

Figures 11-14; Map 2

Araneus (Vixia) bacillifer Simon, 1895: 819, fig. 870, ♀. Simon, 1897: 475. Two immature syntypes from Paraguay, in MNHN no. 8459, examined.

Wixia bacillifera:—Roewer, 1942: 881. Bonnet, 1959: 4828.

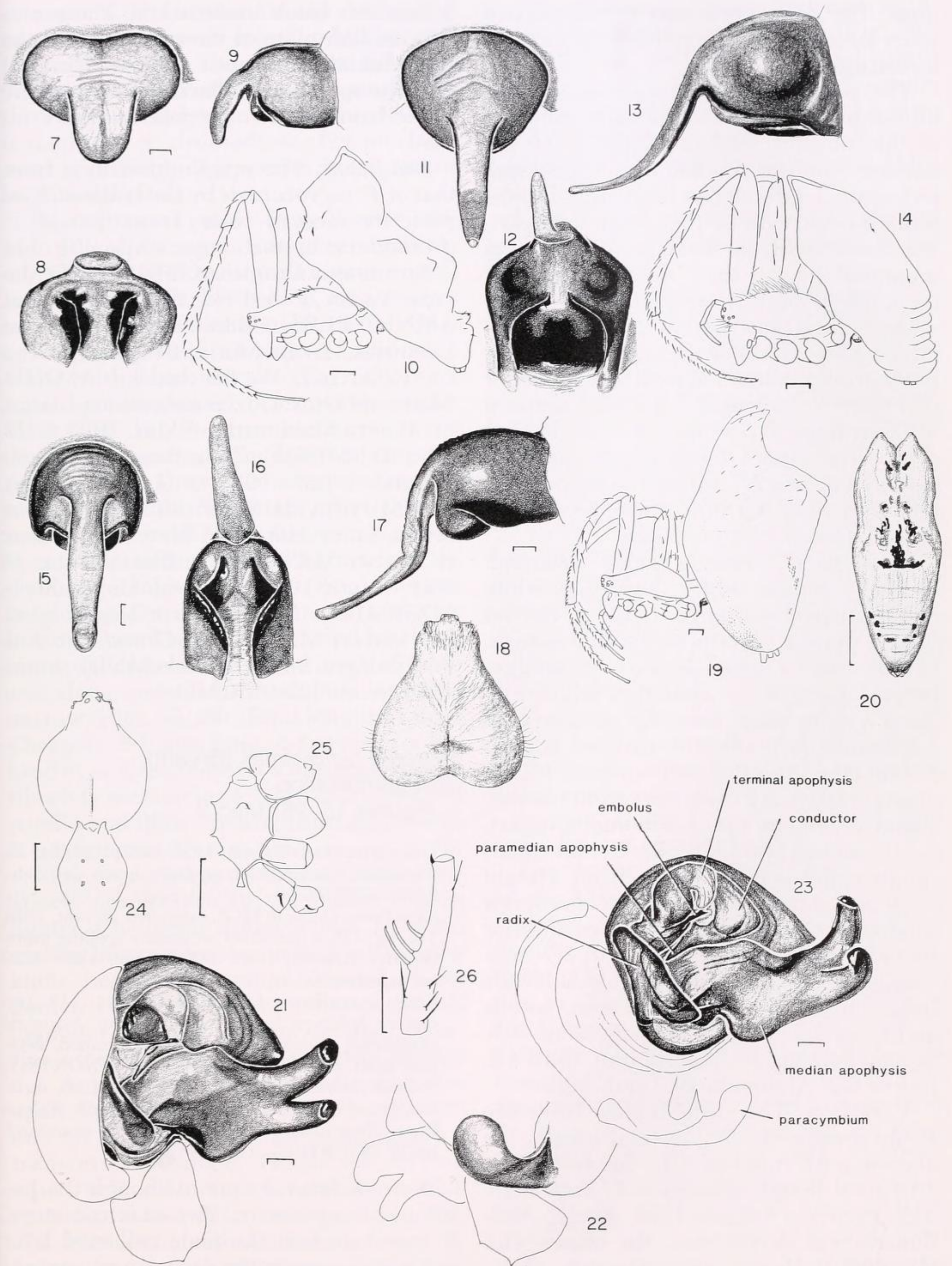
Note. Simon's figure 870 is a mature female showing the scape of the epigy-

Figures 7-10. *Pozonia dromedaria* (O. P.-Cambridge), female. 7-9, epigynum. 7, ventral. 8, posterior. 9, lateral. 10, lateral.

Figures 11-14. *P. bacillifera* (Simon), female. 11-13, epigynum. 11, ventral. 12, posterior. 13, lateral. 14, lateral.

Figures 15-26. *P. nigroventris* (Bryant). 15-20, female. 15-17, epigynum. 15, ventral. 16, posterior. 17, lateral. 18, carapace. 19, lateral. 20, posterior. 21-26, male. 21-23, left palpus. 21, mesal. 22, paracymbium. 23, pulled apart. 24, dorsal. 25, sternum and left coxae. 26, left second tibia, ventral.

Scale lines. 1.0 mm, genitalia 0.1 mm.



num. The description was published two years later and the surviving syntypes are immature.

The posterior median eyes of Simon's immature syntype have the same diameter as the anterior medians, laterals 0.6 diameter. Anterior median eyes 1.1 diameters apart, 1.4 diameters from laterals. Posterior median eyes 1.5 their diameter apart, 1.6 diameters from laterals. Lateral eyes separated by 0.6 their diameter. Ocular rectangle is slightly wider than long and wider behind than in front. Height of clypeus equal to one-third diameter of anterior median eyes. Abdomen with three anterior tubercles. Total length 7.0 mm. Carapace 3.4 mm long, 2.7 wide, 1.2 wide behind eyes. First femur 4.4 mm, patella and tibia 5.4, metatarsus 2.7, tarsus 1.4. Second patella and tibia 4.9 mm, third 2.9, fourth 3.5. Abdomen 11.5 mm high.

Description. Female from Trinidad. Cephalic region dusky with long white hairs. Chelicerae orange. Labium, endites dusky orange. Sternum bright orange. Coxae dusky orange; legs dusky orange-brown. Dorsum of abdomen white and black; venter black. Posterior median eyes 1.2 diameters of anterior medians, laterals 1 diameter. Anterior median eyes 1.2 diameters apart, 2.2 diameters from laterals. Posterior median eyes 1.8 diameters apart, 2.2 diameters from laterals. Ocular quadrangle wider behind than in front. Height of clypeus equal to 0.9 diameter of anterior median eyes. Abdomen with two anterior tubercles (Fig. 14). Total length 8.7 mm. Carapace 4.9 mm long, 4.1 wide, 2.1 wide behind eyes. First femur 6.2 mm, patella and tibia 7.5, metatarsus 4.2, tarsus 1.8. Second patella and tibia 7.2 mm, third 4.2, fourth 6.2. Abdomen 10.2 mm high.

Variation. The adult female from São Paulo measured 8.7 mm total length, the abdomen 8.0 mm high; the one from Peru 13.4 total length, abdomen 17 mm high. The Peruvian female from Puerto Maldonado was darker than the others with the cephalothorax orange-brown, abdomen dusky, except for its anterior region,

which was black underneath. The posterior median plate of the epigynum of the same female was more angular than that of other specimens. The illustrations were made from the female collected in Trinidad.

Diagnosis. The epigynum differs from that of *P. nigroventris* by the bottle-shaped posterior median plate, from that of *P. dromedaria* by the longer scape (Fig. 11).

Specimens Examined. TRINIDAD Maracas Valley, Feb. 1972, ♀ (J. A. L. Cooke, AMNH). PERU *Huánuco*: Cueva de Las Lechuzas, Tingo María, 31 June 1967, ♀ (A. F. Archer, W. Sherbrooke, AMNH). *Madre de Dios*: Cuzco Amazonica Lodge, nr. Puerto Maldonado, 8 Mar. 1990, ♀ (D. Silva D., MUSM); Zona Reservada Tambopata, 3 June 1988, ♀ (J. Coddington, USNM). BRAZIL *São Paulo*: Amparo, Fazenda Santa Maria, 25 Nov. 1942, imm. (F. Lane, MZSP 8071); Ilha Vitória, 16 Mar.–7 June 1965, ♀ (Exped. Depto. Zool., MZSP 4141). *Paraná*: Serra Negra, imm. (A. Mayer, MNRJ). *Rio Grande do Sul*: Porto Alegre, imm. (P. Buck, MNRJ); imm., 1984 (A. A. Lise, MCN).

Pozonia nigroventris (Bryant),
new combination

Figures 15–26; Map 2

Wixia nigroventris Bryant, 1936: 329, pl. 23, fig. 10. Immature female holotype from Loma del Gato, 2,600–3,325 ft [790–1,010 m], Sierra de Cobre, Santiago Prov., Cuba, in MCZ, examined. Bryant, 1940: 346, fig. 113, ♂ (incorrect secondary spelling *nigri-ventris*). Roewer, 1942: 882. Bonnet, 1959: 4829 (as *nigri-ventris*).

? *Kaira granadensis* Mello-Leitão, 1941: 118. Immature holotype from Cucuta [Depto. Norte de Santander], Colombia, in MNRJ, examined. Brignoli, 1983: 271. NEW DOUBTFUL SYNONYMY.

? *Pozonia cornuta* Schenkel, 1953: 25, fig. 23, imm. Immature male holotype from El Pozón, Falcon Prov., Venezuela, in NMB no. 1815a, examined. NEW DOUBTFUL SYNONYMY.

Nomenclatural note. Although the holotype of *nigroventris* Bryant is immature, it is certain that the male collected later in Cuba is conspecific since we can expect that there is only one species belonging to

Pozonia in the Greater Antilles. Males and mature females were found in Mexico and Central America. The immature holotype of *granadensis* Mello-Leitão is similar to the immature holotype of *nigroventris* but it might be *A. dromedaria*. *Pozonia cornuta* is probably this species but it might be *P. bacillifera*.

Description. Female from Barro Colorado Island, Panama. Carapace, chelicerae, labium, endites, sternum orange-yellow. Carapace darker behind median eyes and with long, white hair-like setae. Coxae, legs yellowish. Dorsum of abdomen white with black streaks (Fig. 20), with some spindle-shaped black setae; venter black (Fig. 19). Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter of anterior medians. Anterior median eyes 1.2 diameters apart, 1.6 diameters from laterals. Posterior median eyes 1.3 diameters apart, 2.3 from laterals. Ocular rectangle wider than long. Clypeus height equal to 0.6 diameter of anterior median eyes. The first and second legs have many macrosetae on distal part of tibia and along metatarsus. Abdomen long and narrow (Figs. 19, 20). Total length 14 mm. Carapace 5.1 mm long, 4.1 wide, 2.1 behind eyes. First femur 6.5 mm, patella and tibia 8.0, metatarsus 4.7, tarsus 2.0. Second patella and tibia 7.5 mm, third 4.5, fourth 6.4. Abdomen 16 mm high.

Male from Sierra de Cobre, Cuba. Carapace orange-brown, cephalic region lighter. Chelicerae dusky brown. Labium, endites brown. Sternum orange with dusky knob. Legs dusky orange. Venter of abdomen black. Posterior median eyes 0.7 diameter of right anterior median, anterior laterals 0.7 diameter, posterior laterals 0.4. Anterior median eyes their diameter apart. Posterior median eyes with only right one on a tubercle. Ocular quadrangle a transverse rectangle. Height of clypeus equal to 1 diameter of anterior median eyes. Sternum with a median knob (Fig. 25). First coxa with hook and dorsal tubercle, fourth with macroseta. Fourth trochanter with one macroseta. Second tibia

thicker than first, slightly flattened, swollen, with prolateral macrosetae (Fig. 26). Abdomen seen in Figure 24. Total length 5.6 mm. Carapace 3.1 mm long, 2.3 wide, 1.1 wide behind eyes. First femur 4.1 mm, patella and tibia 4.8, metatarsus 2.8, tarsus 1.5. Second patella and tibia 4.1 mm, third 2.9, fourth 3.8.

Note. Males and females were matched because both were uniquely found in the Greater Antilles.

Variation. The immature holotype of *A. nigroventris* (Fig. 20) is only 4.5 mm long, and has posterior median eyes larger than anterior medians, and the ocular rectangle wider than long. Carapace 2.5 mm long, 2.2 wide, 1.1 behind eyes. First patella and tibia 3.8 mm, abdomen 4.8 high. The specimen from Guatemala has the clypeus less than half the AME diameter. Total length of females 8.4 to 14 mm, of males 5.5 to 6.5. Illustrations of the female (Figs. 15–19) were made from specimens from Barro Colorado Island, Panama, and of the male (Figs. 21–26) from a specimen from Cuba.

Diagnosis. The epigynum of the female differs from that of *A. dromedaria* by the long scape (Figs. 15–17); it differs from that of both *A. dromedaria* and *A. bacillifera* by the hexagonal shape of the posterior median plate (Fig. 16).

Natural History. A male from Panama came from a canopy sample.

Specimens Examined. MEXICO *Yucatan*: Kabah [Kabá], 19 July 1964, ♂ (J. C. Pallister, AMNH). GUATEMALA *Peten*: Poptún, Finca Ixobel, 7 Feb. 1980, ♂ (V. Roth, AMNH). COSTA RICA *Puntarenas*: nr. Tárcoles, Reserva Carara, 23 Nov. 1984, imm. (W. Eberhard 2682, MCZ). *Cartago*: Turrialba, 23 July–13 Aug. 1965, imm. (A. M. Chickering, MCZ). PANAMA *Panamá*: Summit, July 1939, ♀, Aug. 1950, 2♂ (both A. M. Chickering, MCZ); Barro Colorado Isl., 23 May, 1952, ♀ (T. C. Schneirla, AMNH); Pipeline Rd. nr. Gamboa, 25 July 1979, ♂ (M. K. Stowe, MCZ); 12 July 1976, ♂ (Y. Lubin, JAK); Fort Sherman, Aug. 1939, ♂ (A. M. Chickering, MCZ); Chiva Chiva, Oct. 1946, ♂ (N. L.

H. Krauss, AMNH); Chilibre, July 1950, imm. (A. M. Chickering, MCZ).

CUBA Sierra del Cobre, 3,000–3,800 ft [900–1,200 m], 3–7 July 1936, ♂ (P. J. Darlington, MCZ); Loma de la Alegría, Cayo Sabinal, Camagüey, 28 Jan. 1989, imm. (A. Avila Calvo, IESC). JAMAICA *St. Thomas*: 6.5 mi [10.4 km] NE Bath, 10 Oct. 1957, imm. (A. M. Chickering, MCZ).

Ocrepeira Marx

Ocrepeira Marx, 1883: 22. Type species by monotypy *Epeira ectypa* Walckenaer.

Amamra O. P.-Cambridge, 1889: 55. Type species by monotypy *Amamra bituberosa* O. P.-Cambridge, 1889.

Notes. Marx failed to indicate that he was introducing a new generic name and only listed *ectypa* in a list of species in combination with a previously unknown generic name: *Ocrepeira*. Neave (1939–1975) does not list this generic name. According to the *International Code of Zoological Nomenclature* (1985) Art. 12 b (5), *Ocrepeira* is an available name, and the identity of the type species *Epeira ectypa* Walckenaer, 1841 is not in doubt.

F. P.-Cambridge (1904) synonymized *Amamra* with *Wixia* and has been followed by others including Bryant (1936: 329, 330) and myself (1976), although Bryant questioned this synonymy. The shape of the carapace is a very good generic character in the orb weavers and the carapace shape of *Wixia abdominalis* differs from that of other species previously placed in the genus (Figs. 5, 6).

Diagnosis. The carapace differs from that of *Pozonia* and *Acacesia* (Levi, 1976, fig. 78) by being wide in the eye region (Fig. 27), with some exceptions, and differs from that of *Wixia* by being relatively low, with the clypeus height equal to one or at most two diameters of the anterior median eyes (Fig. 28). The abdomen, unlike that of *Parawixia* and *Wagneriana*, has only two anterior humps (with some exceptions), and the attachment of the pedicel, unlike that of *Wixia* and *Pozonia*, is at the anterior half of the abdomen (Fig. 40).

The paramedian apophysis of the palpus is a straight rod, as is that of *Pozonia*, with the tip rounded (Fig. 32), sometimes pointed (Fig. 106), rarely short (PM in Fig. 46). The paramedian apophysis of *Wagneriana* is L-shaped, and that of *Parawixia* and *Eriophora* is enlarged, distal to the conductor, and disk-shaped (Levi, 1991b).

Ocrepeira females have been confused with those of *Neoscona* (Berman and Levi, 1971, figures 121–124). Differences are that the *Neoscona* carapace is less sclerotized, with more hair-like setae, the cephalic region is narrower than that of *Ocrepeira*, and the posterior median eyes face dorsally. *Neoscona* females can be separated by the oval abdomen from the few *Ocrepeira* whose eyes face dorsally; *Ocrepeira* whose eyes face “up” have a shield-shaped abdomen or an oval pattern-less abdomen with a dark frame (Fig. 390). In addition, the venter of the abdomen of *Neoscona* has two to four pairs of white patches on black, while that of *Ocrepeira* has only one pair of white patches. African *Pararaneus* (Grasshoff, 1968) species differ by having only a short lobe on the conductor which might be a paramedian apophysis; the median apophysis has a proximal projection and has the eyes facing dorsally. Its coloration and palpal structures (Grasshoff, 1968) are similar to *Ocrepeira*'s.

Description. The cephalic region is often darker than the thoracic. The sternum may be darker than the coxae or may have some white pigment, the legs are ringed and the pattern on the dorsum of the abdomen is variable among specimens of the same species. In a number of species, however, the anterior part of the abdomen is dark in color to a distinct line between the tubercles (Figs. 148, 189, 357). Many of the species with a light-colored abdomen in alcohol and with few dorsal marks probably are green when alive (as is *O. albopunctata*). The venter of the abdomen is marked gray to black, frequently with species-characteristic white spots or patches. This ventral pattern can be used to match males with females.

Two species, *O. hirsuta* and *O. lapeza*, have the sternal color pattern with paired light patches otherwise characteristic of *Parawixia*. *Ocrepeira lapeza* (Fig. 343) has paired dark spots on the carapace, as is also characteristic of *Acanthepeira* and *Parawixia* species.

Males are usually darker than females, have a darker cephalic region than the female, and often have dark, radiating streaks from the thoracic groove toward the cephalic region (Fig. 368). Males are more likely than females to have white pigment under the sternum and a white cardiac mark on the abdomen.

The carapace is low, the clypeus height equal to one to two diameters of the anterior median eyes. The cephalic region is relatively wide in females. The posterior median eyes are on a swelling, the eyes facing anterolaterally. This posterior median eye position is more pronounced in *Ocrepeira* than in related genera. However, several species lack this swelling (*O. yaelae* Fig. 357, *O. comaina* Fig. 368, *O. herrera* Fig. 390, *O. covilli* Fig. 399). These same species have a narrow cephalic region (*camaca* Fig. 97, *yaelae* Fig. 357, *herrera* Fig. 390, *covillei* Fig. 399). The narrow head and eyes "facing up" is considered as secondary since some species show intermediate stages (*gulielmi* Fig. 239, *viejo* Fig. 384). The genitalia of these species are similar to those of other *Ocrepeira*. The anterior or posterior median eyes are the largest, the laterals always the smallest. The lateral eyes may be slightly separated from each other. There are some setae on the carapace, usually a bunch of setae above the lateral eyes. The first leg is the longest, the third the shortest. Usually the second leg is slightly longer than the fourth. The abdomen, unlike that of *Pozonia*, has only two anterior tubercles. These tubercles are rarely absent (*comaina* Fig. 368, *herrera* Fig. 390, *covillei* Fig. 399). Only *O. rufa* (Fig. 51), *O. arturi* (Fig. 104), and *O. mastophoroides* (Fig. 140) have numerous tubercles. It is certain that all *O. mastophoroides* have these many tu-

bercles, but perhaps only some individuals in *O. rufa* and *O. chickeringi* do. Few have an anterior median tubercle (*darlingtoni* Fig. 332, *atuncela* Fig. 256). Some have the anterior tubercles projecting, others have them pointing laterally, and in some this character is variable, differing among individuals of the same species. The abdomen is attached slightly vertically to the cephalothorax, the anterior overhang is greater than in species of some other genera, but less than in *Wixia* and *Pozonia*.

Males appear similar to females, but have a narrow cephalic region, and a smaller abdomen, with less distinct tubercles. The endite of all males has a tooth facing a tubercle on the proximal end of the palpal femur. The sternum of *O. covillei* has several short macrosetae, but many specimens lack these setae. The first coxa has a hook on the distal margin (Fig. 34); there is a groove on the second femur. The third and fourth coxae frequently have one or more short macrosetae, sometimes on a tubercle. The third and fourth trochanters may also have macrosetae (Fig. 34). These macrosetae are quite variable, often of different number on left and right sides, sometimes absent in individuals of species that have them. The palpal patella of all species has one long macroseta. The second tibia is always thicker than the first, sometimes swollen, bearing sometimes long macrosetae, but never having outgrowths or branches (Fig. 35).

The epigynum is heavily sclerotized with a broad lobe-shaped scape usually attached posteriorly to the base. The scape may be longer than the width of the base (Fig. 29). In posterior view there are median and lateral plates (Fig. 30). The sclerites in posterior view of the epigynum are diagnostic for many species.

The palpus is similar to that of *Parawixia* (Levi, 1992, figs. 7, 8). It has a large conductor, to which is attached the paramedian apophysis. The paramedian apophysis is of characteristic shape, usually rounded at its distal end with parallel sides. In *O. subrufa* (Fig. 46), it is a flat,

rectangular extension of the conductor. In *O. rufa* (Fig. 69) and *O. potosi* (Fig. 75) it is shoe-shaped, and in others it is a long, tapering, pointed structure (*gulielmi* Fig. 241, *anta* Fig. 262, *jacara* Fig. 364, *co-maina* Fig. 367, *heredia* Fig. 369, *albopunctata* Fig. 378, *herrera* Fig. 391, *covillei* Fig. 402). In two species the paramedian apophysis is a gutter, a repository for the embolus (*abiseo* Fig. 319, *tinajillas* Fig. 327). In most species there is an outgrowth from the radix toward the embolus and the paramedian apophysis, barely visible in some, prominent in others (*yaelae* Fig. 359, *jacara* Fig. 364, *albopunctata* Fig. 377, *viejo* Fig. 385). Both the paramedian apophysis and the radix outgrowth seem to support the embolus. The median apophysis is always large, often distally forked, and its insertion into the radix is less modified than that of *Parawixia* and *Wagneriana* species. The embolus is short and scale-like, or pointed, except in *O. magdalena* (Fig. 338), which has a long embolus. Emboli are generally similar in related species. Beyond the embolus is a tripartite structure (Fig. 46). While one can call the part closest to the embolus the embolar lamella and the most distal, the terminal apophysis, these parts are difficult to homologize with similar parts in other araneids. The outgrowth of the radix is an autapomorphy. The *O. albopunctata* and *O. viejo* embolus has a large, scale-like structure (Fig. 379) that is transferred to the female when mating, and once in the epigynum (on left in Figs. 372, 373) the scale is difficult to remove. Other species may have a similar, less conspicuous, structure.

Many species with a narrow cephalic region also lack the posterior median eye swelling, have an oval or shield-shaped abdomen, a tapering, pointed paramedian apophysis, and a prominent radix outgrowth. However, there is also considerable overlap: not all species with a narrow cephalic region have posterior median eyes facing "up." Other species have a pointed paramedian apophysis, and the outgrowth

from the radix, though less distinct, is found in yet other species.

Relationships. The position of the posterior median eyes, their placement on a slight swelling with the eyes facing sideways to forward is a character shared by the species of the three genera, *Wixia*, *Pozonia*, and *Ocrepeira*. This character is also found in some *Parawixia* and in *Acacesia* and is believed a synapomorphy of these groups. In some species of unrelated genera (e.g., *Eustala*) the posterior median eyes are similarly placed, and in several species of *Ocrepeira* it appears this peculiar placement of eyes has been secondarily lost. The position of the posterior median eyes, the abdomen shape, and the pointed paramedian apophyses are synapomorphies of *Ocrepeira* and related genera. The outgrowth of the radix is an autapomorphy of *Ocrepeira*.

Natural History. Stowe (1978) described a specialized scaffold-like, reduced web for *Ocrepeira ectypa*. This observation may have been an error, or the observation of a temporary day-time web. All the specimens collected with web notes in vials indicated that the spider had made a complete orb web; the orb is nearly vertical.

Ocrepeira salidito (no. 1139) and *O. atuncela* (no. 173) have a fine-meshed orb with the hub closed; *O. lapeza* (no. 1491) and *O. planada* (no. 3347, 3358) have a loose mesh with a wide central hole (Plate 1); they build the orbs at night and the spider rests in the hub face down (Eberhard, voucher numbers of specimens in MCZ and personal communication).

Distribution. Most species are Neotropical and many species come from high elevations in the Andes (Map 3). The Andean species, many isolated from each other, may be very localized and of limited distribution. Species occurring north of Mexico (see Levi, 1976) are *O. globosa*, *O. redempta* (see Levi, 1976), *Ocrepeira ectypa* (Walckenaer, 1841), and *Ocrepeira georgia* (Levi, 1976), NEW COMBINATION.



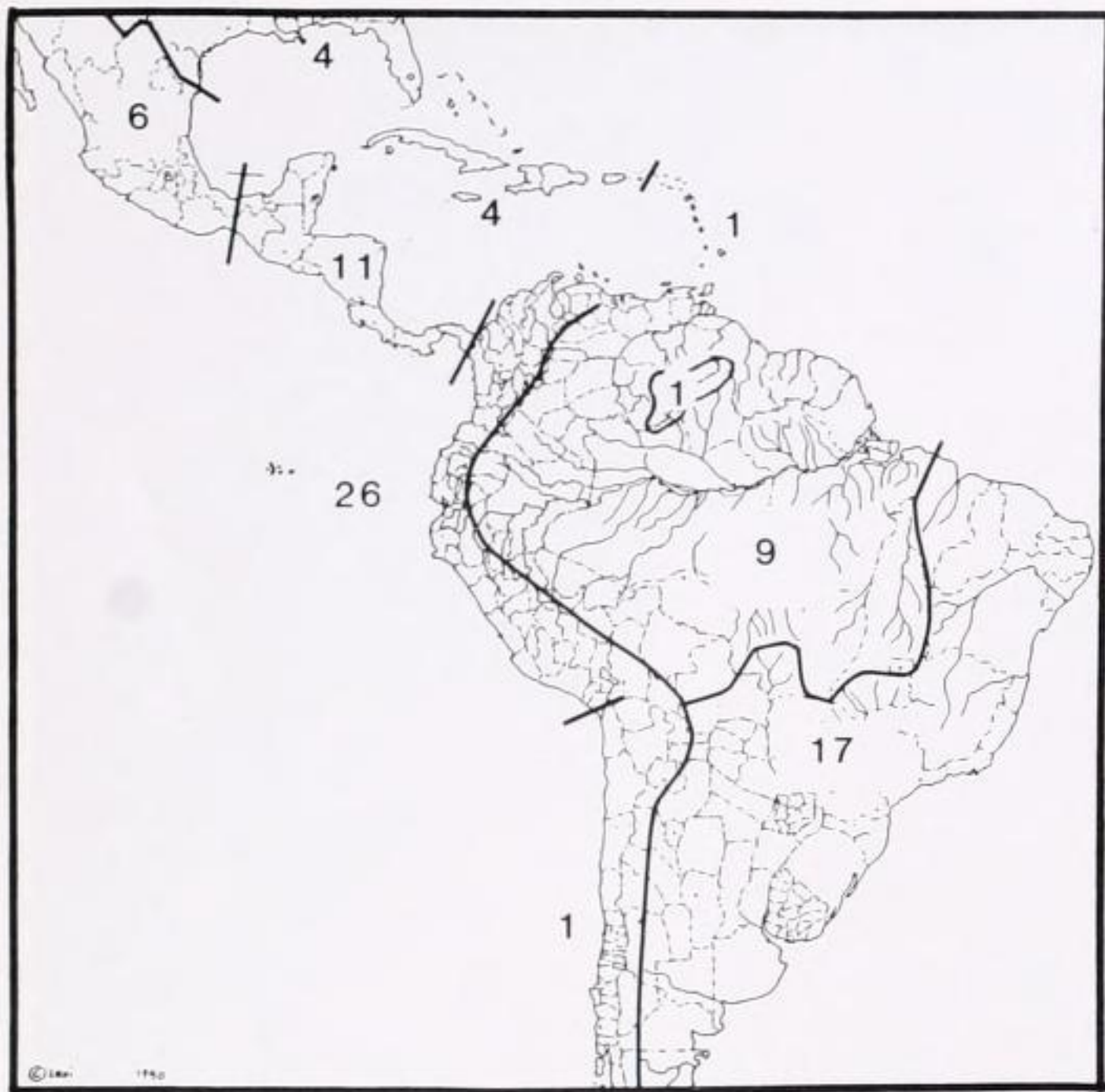
Plate 1. Left, *Ocrepeira atuncela*, horizontal diameter of orb 24 cm. Right, *O. lapeza*, horizontal diameter of orb 18.6 cm (photo, W. Eberhard).

Keys. The keys were more difficult to construct than those for species of other genera. Most species are relatively uncommon and few specimens were available. Often, the variability of color patterns or tubercles is unknown. The availability of these features would have simplified the key.

KEY TO FEMALES OF *OCREPEIRA* SPECIES

- 1. Abdomen with many humps evenly distributed (Figs. 51, 104, 140) 2
- Abdomen with only a pair of anterior tubercles or humps, sometimes an anterior median tubercle (Figs. 39, 44, 63, 332) 4
- 2(1). Epigynum as in Figures 137-139; Argentina (Map 5) *mastophoroides*
- Epigynum as in Figures 48, 101; Mexico and Central America 3
- 3(2). Epigynum pointed posteriorly in ventral view (Fig. 101); Panama (Map 4) *arturi*
- Epigynum rounded posteriorly in ventral view (Fig. 48); Mexico to Panama (Map 4) *rufa*

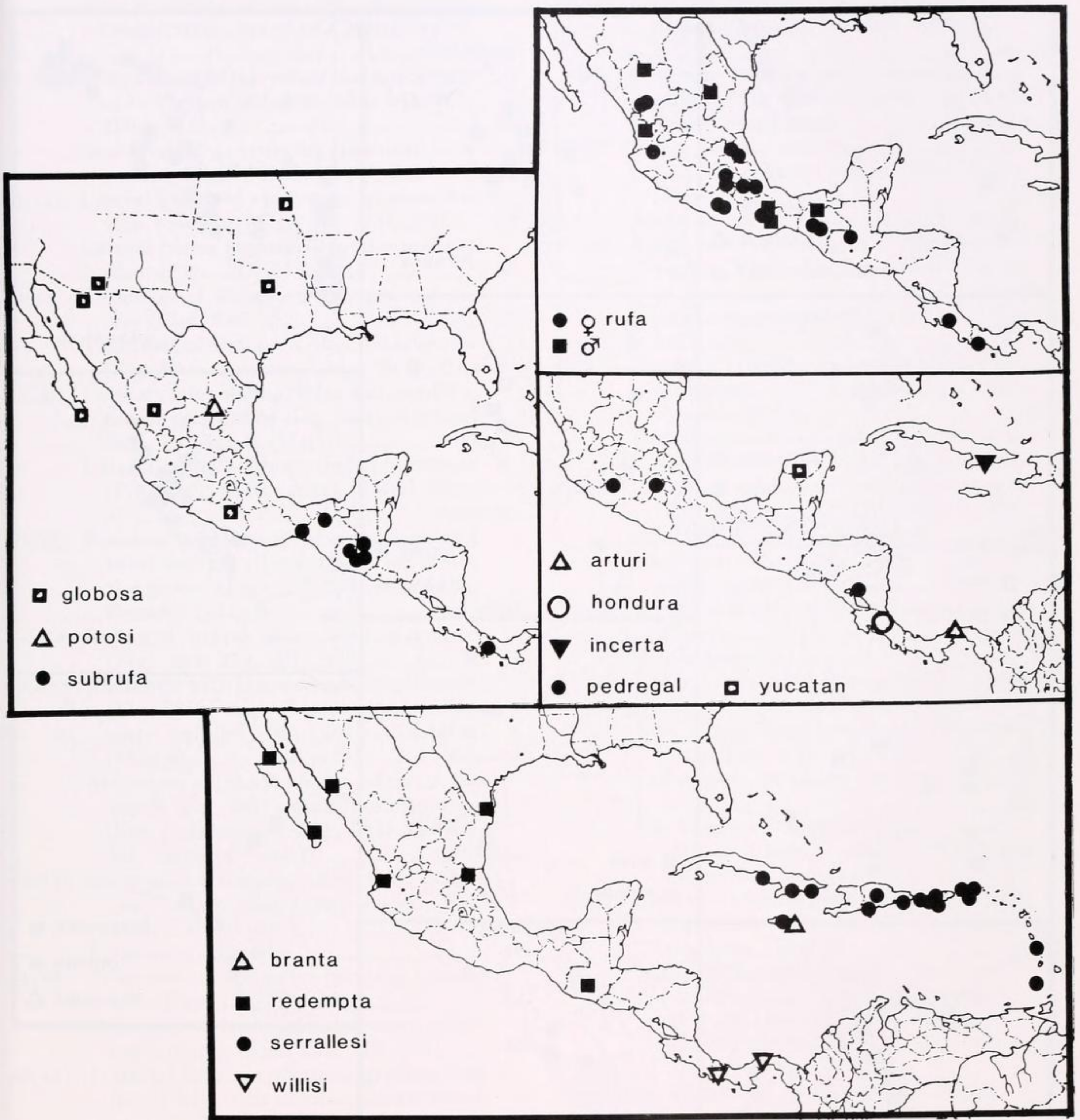
- 4(1). Epigynum (base and scape) in ventral and posterior views as long as wide or wider than long (Figs. 71, 72, 302, 303, 322, 323, 340, 341, 372, 373) 5
- Epigynum (base and scape) longer than wide in ventral and posterior views (Figs. 160, 161, 167, 168) 19
- 5(4). Scape forming a lobe of posterior margin of base (Figs. 36, 37, 41, 42, 52, 53, 340, 341) 15
- Scape set off from base (Figs. 257, 264, 278, 372, 403) 6
- 6(5). Scape originating at anterior of base (Figs. 372, 375), posterior view of epigynum as in Figure 373; Guyana, Amazon area (Map 6) *albopunctata*
- Scape originating on ventral face or posterior of base (Figs. 257, 264, 278, 302, 403) 7
- 7(6). Scape longer than wide (Figs. 264, 272, 302) 11
- Scape as long as or shorter than wide (Figs. 257, 308) 8
- 8(7). In posterior view of epigynum lateral plates touch dorsally (bottom of Fig. 258); Colombia (Map 5) *anta*
- In posterior view lateral plates separated (Figs. 309, 316); Peru 9



Map 3. Approximate number of *Ocrepeira* species in different areas.

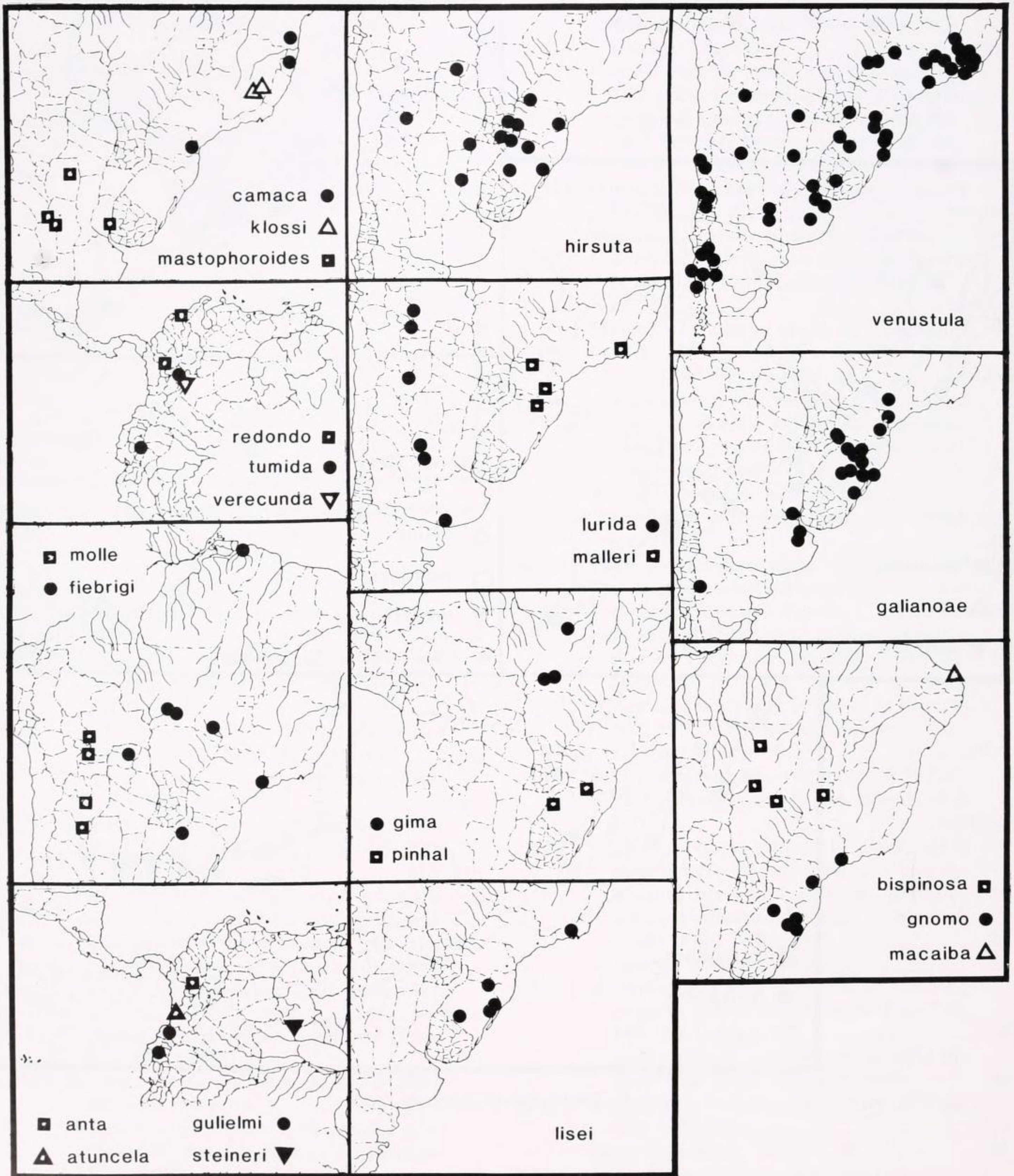
- 9(8). In posterior view median plate overhanging lateral plates (Fig. 404) *sorota*
- In posterior view lateral plates overhanging medians (Figs. 309, 316); Bolivia (Map 6) 10
- 10(9). Posterior area of base, behind scape, depressed (Figs. 308, 309); (Map 6) *cuy*
- Posterior area of base otherwise (Figs. 315, 316); (Map 6) *abiseo*
- 11(7). Dorsum of abdomen with pairs of black spots having light rings (Fig. 305); Colombian Andes (Map 6) *saladito*
- Dorsum of abdomen without such spots 12
- 12(11). Posterior median plate of epigynum subdivided into anterior and posterior plates, anterior one with a median longitudinal groove (Fig. 265); Peru (Map 6) *barbara*
- Posterior median plate otherwise (Figs. 273, 279, 323) 13
- 13(12). Posterior median plate circular (Fig. 273); Ecuador (Map 6) *tungurahua*
- Posterior median plate with parallel sides (Fig. 279) or with median constriction (Fig. 323) 14
- 14(13). Posterior median plate with sides parallel (Fig. 279); Colombian Andes (Map 6) *valderramai*
- Posterior median plate constricted (Fig. 323); Ecuador (Map 6) *tinajillas*
- 15(5). Posterior median plate of epigynum much wider than long (Figs. 37, 42) 16
- Posterior median plate longer than wide (Figs. 53, 72, 341) 17
- 16(15). Epigynum in ventral view with a trans-

- verse depression (Fig. 36); posterior median plate trapezoidal (Fig. 37); Mexico (Map 4) *globosa*
- Ventral view of epigynum convex (Fig. 41); posterior median plate dorsally rounded, lateral plates extending dorsally beyond median plate (Fig. 42); Mexico, Guatemala (Map 4) *subrufa*
- 17(15). Jamaica (Map 4); epigynum as in Figures 71-73 *branta*
- Mexico, Central and South America 18
- 18(17). Colombia, epigynum with a small lobe (Figs. 340-342); Colombia (Map 6) *lapeza*
- Mexico to Panama (Map 4), epigynum with wide lobe (Figs. 48-50, 52-54, 56-58, 60-62, 64-66) *rufa*
- 19(4). Abdomen oval with indistinct humps and without dorsal folium or transverse streaks (Figs. 390, 399), sometimes with dark dorsal patch (Fig. 400) 20
- Abdomen with a pair of humps or tubercles or with dorsal folium or streak markings 22
- 20(19). Posterior median plate triangular and with granulated surface (Fig. 388); Peruvian Amazon (Map 6) *herrera*
- Posterior median plate with a constriction or with sides parallel (Figs. 95, 393) 21
- 21(20). Epigynum with long scape as in Figures 392, 395, 397; Central America to Amazon area (Map 6) *covillei*
- Epigynum with short scape as in Figure 94; Bahia to Paraná States, Brazil (Map 5) *camaca*
- 22(19). Abdomen dorso-anteriorly dark, dark area sharply demarcated at a line extending between tubercles, posterior without folium, sometimes with a dark patch (Figs. 183, 384) 23
- Abdomen marked otherwise 34
- 23(22). Anterior dark area of abdomen covering anterior pair of muscle scars (Figs. 183, 189, 208) 24
- Anterior pair of muscle scars outside the dark area (Figs. 148, 150, 337) 28
- 24(23). Scape laterally flattened or torn off (Figs. 193, 195, 206) 25
- Scape otherwise 26
- 25(24). In posterior view scape (or scar) touching median plate (Fig. 206); Mato Grosso State, Brazil (Map 5) *gima*
- In posterior view scape some distance from median plate (Fig. 195); Brazil, Paraguay (Map 5) *febrigi*
- 26(24). Sides of scape with median swelling (Fig. 180); southern Brazil (Map 5) *malleri*
- Sides of scape almost parallel (Figs. 186, 201) 27
- 27(26). Length of epigynum and scape less than



Map 4. Distribution of *Ocrepeira* species.

- 1.5 times its width (Fig. 200); Bolivia, N. Argentina (Map 5) *molle*
- Length of epigynum more than twice its width (Fig. 186); São Paulo State, Brazil to Buenos Aires Prov., Argentina (Map 5) *galianoae*
- 28(23). Hispaniola (Map 6), epigynum as in Figures 329-331 *darlingtoni*
- Central and South America; epigynum otherwise 29
- 29(28). Epigynum large and flat as in Figures 360-362; Peru (Map 6) *duocypha*
- Epigynum otherwise (Figs. 143, 354, 380) 30
- 30(29). Scape with parallel sides (Figs. 354, 380) 31
- Scape tapering or rounded (Figs. 143, 334, 348) 32
- 31(30). Scape smooth, posterior view of epigynum as in Figure 381; Central America, Venezuela to Peru (Map 6) *viejo*
- Scape wrinkled, posterior view of epi-



Map 5. Distribution of *Ocrepeira* species.

- gynum as in Figure 355; Ecuador (Map 6) *yaelae*
- 32(30). Epigynum in posterior view with deep pit at ventral end of median plate (center of Fig. 349); Venezuela, Colombia, and Amazon area (Map 6) *maraca*
- Epigynum without pit (Figs. 144, 335) 33
- 33(32). Sides of scape convex (Fig. 334) *magdalena*

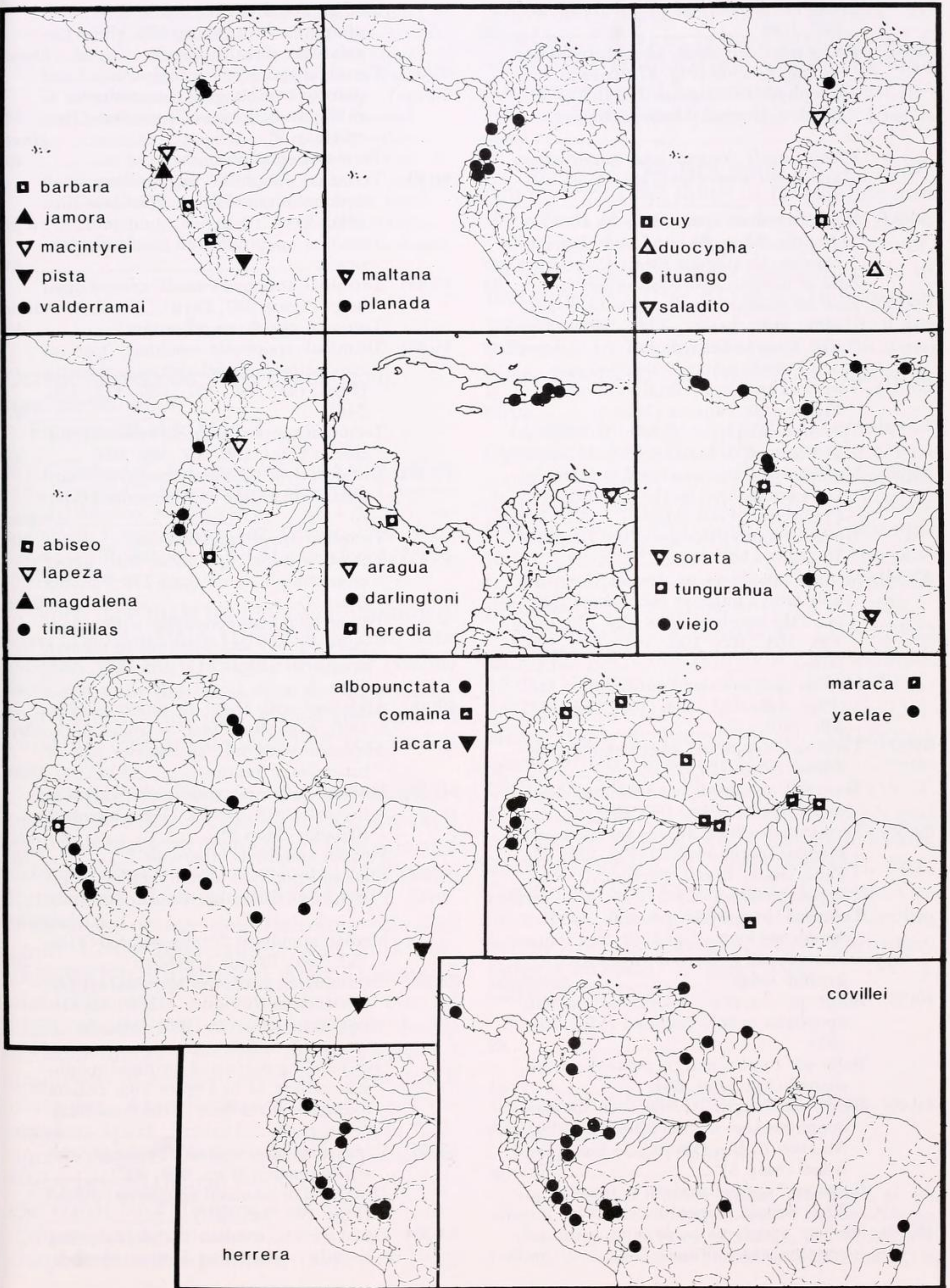
- Sides of scape concave (Fig. 143); Minas Gerais State, Brazil to Chile (Map 5) *venustula*
- 34(22). Origin of scape on ventral surface of base as in Figures 236, 238, 243, 245, 297, 299 35
- Base gradually narrowing posteriorly into a scape (Figs. 143, 146, 167, 212) 40
- 35(34). Lateral plates of epigynum in posterior view touching (Figs. 244, 250, 298) 36
- Lateral plates separated by the median plate (Figs. 237, 254, 291) 38
- 36(35). Tubercles of abdomen directed anteriorly (Figs. 246, 252) 37
- Tubercles of abdomen directed laterally (Fig. 300); Colombia (Map 6) *ituango*
- 37(36). Lateral plates of epigynum with median, dorsal projections (Fig. 244); Amazon area, Venezuela (Map 5) *steineri*
- Lateral plates without such projections (Fig. 250); northeastern Brazil (Map 5) *macaiba*
- 38(35). Posterior lateral plates of epigynum (and base) having a lateral anterior-posterior groove (Figs. 237, 238); Colombia, Ecuador (Map 5) *gulielmi*
- Base and lateral plates without groove (Figs. 254, 255, 291, 292) 39
- 39(38). Abdomen with anterior median tubercle (Fig. 256); sides of posterior median plate parallel (Fig. 254); Colombia (Map 5) *atuncela*
- Abdomen without median anterior tubercle (Fig. 293) sides of posterior median plate convex (Fig. 291); Colombia, Ecuador (Map 6) *planada*
- 40(34). Epigynum triangular (Fig. 114); posterior median plate bottle-shaped (Fig. 115); Cuba (Map 4) *incerta*
- Epigynum otherwise 41
- 41(40). Tubercles of abdomen pointing anteriorly (Figs. 177, 228, 235) 42
- Tubercles or humps of abdomen pointing laterally (Figs. 122, 129, 151) 46
- 42(41). Posterior base of epigynum grading into broad lobe with median, longitudinal groove (Figs. 174, 218) 44
- Scape set off from base of epigynum (Figs. 224, 232); Brazil 43
- 43(42). Posterior lateral plates separated by median plate (Fig. 225); São Paulo to Rio Grande do Sul States, Brazil (Map 5) *gnomo*
- Posterior lateral plates overlapping (Fig. 233); Rio de Janeiro to Rio Grande do Sul States, Brazil (Map 5) *lisei*
- 44(42). Posterior lateral plates touching as in Figure 213; Paraná, Rio Grande do Sul States, Brazil (Map 5) *pinhal*
- Posterior lateral plates separated by a median plate (Figs. 175, 219) 45
- 45(44). Posterior median plate triangular (Fig. 175); Colombia, Ecuador (Map 5) *tumida*
- Posterior median plate constricted in middle (Fig. 219); Mato Grosso, Goiás States, Brazil (Map 5) *bispinosa*
- 46(41). Scape slightly swollen above tip (Figs. 131, 133); Minas Gerais State, Brazil (Map 5) *klossi*
- Scape not swollen (Figs. 119, 126, 167) 47
- 47(46). Epigynum subtriangular, lobe with a pocket (Fig. 126); Costa Rica (Map 4) *hondura*
- Epigynum otherwise (Figs. 88, 143, 160, 167) 48
- 48(47). Posterior of epigynum with a wide, deep depression behind scape (Fig. 168); Panama (Map 4) *willisi*
- Epigynum without such a depression, or with a narrow pit (Figs. 120, 144, 161) 49
- 49(48). Abdomen with a pair of white squares their diameter apart on underside (Fig. 82); West Indies (Map 4) *serrallesi*
- Abdomen otherwise or with a pair of white spots (Fig. 164) 50
- 50(49). Mexico (Map 4); epigynum as in Figures 88–90 *redempta*
- South America 51
- 51(50). Ventral view of epigynum with a bulge on each side, scape behind bulge hardly longer than length of base above bulge (Figs. 119–121); southern Brazil, Paraguay, northern Argentina (Map 5) *hirsuta*
- No bulges on sides of epigynum (Fig. 160), or if bulges, scape behind bulge longer than length of base (Fig. 143) 52
- 52(51). Posterior median plate vase-shaped (Fig. 161); Bolivia to Buenos Aires Prov., Argentina (Map 5) *lurida*
- Sides of posterior median plate almost parallel, sometimes slightly constricted (Figs. 144, 146); Minas Gerais, Brazil to Chile (Map 5) *venustula*

KEY TO MALES OF OCREPEIRA SPECIES

Ocrepeira verecunda from Colombia (Figs. 155, 156) is not included in the key.

1. Median apophysis of palpus (Figs. 32, 33, M in 46, 47) with two prongs of equal length or "lower" one longer than "upper." Length of one of the prongs at least one quarter length of median apophysis (Figs. 223, 231, 242, 248, 263, 270, 277, 283, 288, 296, 306, 307, 314, 320, 328, 333) 2
- Median apophysis with one prong or "lower" one much shorter than "upper" (Figs. 46, 47, 100, 109), or prongs very short or absent (Figs. 285, 353) 16

- 2(1). West Indies (Map 6); palpus as in Figure 333 *darlingtoni*
- South America; palpus otherwise 3
- 3(2). Palpus as in Figures 247, 248; Amazon area, Venezuela (Map 5) *steineri*
- Palpus otherwise; Andes to Brazil 4
- 4(3). Brazil 5
- Andes 6
- 5(4). Base of median apophysis with two parallel lengthwise, curved ridges (Figs. 230, 231); São Paulo to Rio Grande do Sul States (Map 5) *gnomo*
- Base of median apophysis with one "vertical" ridge (Figs. 222, 223); Mato Grosso, Goiás States (Map 5) *bispinosa*
- 6(4). Palpus in ventral view with lower prong about twice as long as upper prong (Figs. 287, 288, 306, 307) 7
- Prongs of more equal length (Figs. 262, 263, 277, 319, 320, 327, 328) 8
- 7(6). "Upper" prong short, blunt (Figs. 306, 307); Colombia (Map 6) *saladito*
- "Upper" prong long, acute (Figs. 287, 288); Peru (Map 6) *pista*
- 8(6). "Upper" prong at its origin wider than "lower" prong; palpus as in Figures 262, 263; Colombia (Map 5) *anta*
- Prongs of equal width or "lower" prong wider (Figs. 242, 270, 277, 283, 296, 314, 319, 328) 9
- 9(8). "Lower" edge of median apophysis with a proximal bulge (Figs. 313, 319, 327) 10
- "Lower" edge of median apophysis without bulge (Figs. 241, 269, 276, 282, 295) 12
- 10(9). Base of median apophysis with a semi-circular offset (Fig. 313); Peru *cuy*
- Base of median apophysis otherwise (Figs. 319, 327) 11
- 11(10). Base of median apophysis with a triangular offset (Fig. 319) *abiseo*
- Base of median apophysis with little sculpturing (Fig. 327) *tinajillas*
- 12(9). Base of median apophysis with a semi-circular offset (Figs. 276, 295) 13
- Base of median apophysis otherwise (Figs. 241, 269, 282) 14
- 13(12). Prongs of median apophysis long (Figs. 295, 296) *planada*
- Prongs of median apophysis short (Figs. 276, 277) *tungurahua*
- 14(12). Base of median apophysis with a triangular offset (Fig. 282) *valderramai*
- Base of median apophysis otherwise (Figs. 241, 269) 15
- 15(14). Base of median apophysis with boomerang-shaped offset (Fig. 269) *macintyreii*
- Base of median apophysis with a "diagonal" ridge (Fig. 241) *gulielmi*
- 16(1). Median apophysis "higher" than long as in Figures 338, 339; northern Colombia (Map 6) *magdalena*
- Median apophysis otherwise (Figs. 184, 284, 352) 17
- 17(16). Embolus thread-shaped (Fig. 216); Peru (Map 6) *maltana*
- Embolus various shapes, never thread-shaped 18
- 18(17). Median apophysis with a narrow neck and dark round spot in its base (Fig. 359); Ecuador (Map 6) *yaelae*
- Median apophysis otherwise 19
- 19(18). Terminal apophysis surrounding minute conductor; terminal apophysis in submesal view larger than conductor (Fig. 385); Central and South America (Map 6) *viejo*
- Terminal apophysis and conductor otherwise 20
- 20(19). Median apophysis with a distal notch (Figs. 210, 285, 353, 365, 369, 370, 377, 378) 21
- Median apophysis without notch (Figs. 47, 93, 141) 26
- 21(20). Distal notch of median apophysis narrow and with parallel sides (Fig. 285); Ecuador (Map 6) *jamora*
- Distal notch shallow or triangular (Figs. 210, 353, 378) 22
- 22(21). Palpus as in Figures 369, 370; Central America (Map 6) *heredia*
- Palpus otherwise 23
- 23(22). Terminal apophysis large and overhanging conductor as in Figures 210, 211 *gima*
- Terminal apophysis otherwise 24
- 24(23). Terminal apophysis small and pointed as in Figure 352 *maraca*
- Terminal apophysis otherwise 25
- 25(24). Terminal apophysis surrounding conductor as in Figures 364, 365 *jacara*
- Terminal apophysis pincer-shaped as in Figure 377 *albopunctata*
- 26(20). Median apophysis having a long tube-shaped (with parallel sides) pointed projection or two with "upper" one longer (Figs. 47, 70, 76, 87, 93, 100, 107, 109, 112, 306, 307) 27
- Median apophysis otherwise (Figs. 141, 142, 172, 173) 36
- 27(26). Palpus as in Figures 99, 100; Paraná State, Brazil (Map 5) *camaca*
- Palpus otherwise; Colombia, Mexico, Central America, West Indies 28
- 28(27). Palpus as in Figures 306, 307; Colombia *saladito*
- Palpus otherwise; Mexico, Central America, West Indies 29
- 29(28). Paramedian apophysis shoe-shaped (Figs. 69, 75) 30
- Paramedian apophysis otherwise 31
- 30(29). Prong of median apophysis thick as in Figures 69, 70 (Map 4) *rufa*
- Prong thin and curved "up" as in Figures 75, 76; Mexico (Map 4) *potosi*
- 31(29). Prong of median apophysis with a distal bend as in Figures 111, 112; Mexico (Map 4) *yucatan*



Map 6. Distribution of *Ocrepeira* species.

- Prong evenly curved (Figs. 47, 87, 93, 107, 109) 32
- 32(31). Prong relatively short, about three times as long as wide (Fig. 47); paramedian apophysis rectangular (PM in Fig. 47); Mexico, Central America (Map 4) *subrufa*
- Prong much longer and paramedian apophysis otherwise (Figs. 76, 93, 107, 109) 33
- 33(32). Base of median apophysis with an offset area the shape of a semicircle (Fig. 93); Mexico, Guatemala (Map 4) *redempta*
- Base of median apophysis otherwise 34
- 34(33). Base of median apophysis with a large offset area the shape of a tooth (Fig. 87); West Indies (Map 4) *serrallesi*
- Base of median apophysis otherwise 35
- 35(34). Terminal apophysis distally forked as in Figure 106; Panama (Map 4) *arturi*
- Terminal apophysis distally pointed as in Figure 108; Mexico (Map 4) *pedregal*
- 36(26). Median apophysis short and in submesal view surrounded by the tegulum as in Figure 391; Peru (Map 6) *herrera*
- Median apophysis longer (Figs. 124, 135, 184, 190, 198) 37
- 37(36). Median apophysis in ventral view distally with a bulge or keel "above," beyond the tegulum (Figs. 124, 125, 135, 136, 184, 185, 190, 191, 198, 199, 204) 38
- Median apophysis without bulge or keel (Figs. 142, 153, 158, 166, 179, 211, 346, 386) 43
- 38(37). Terminal apophysis overhanging conductor (Figs. 124, 190) 39
- Terminal apophysis not reaching "top" of conductor (Figs. 135, 184, 198) 40
- 39(38). Terminal apophysis distally rounded, and median apophysis short (Fig. 124); São Paulo State, Brazil, Paraguay, northern Argentina (Map 5) *hirsuta*
- Terminal apophysis pointed, median apophysis long (Fig. 190); São Paulo State, Brazil to Buenos Aires Prov., Argentina (Map 5) *galianoae*
- 40(38). Bulge on "upper" margin of median apophysis evenly rounded (Figs. 136, 185) 42
- Bulge on "upper" margin pointed or keel-shaped (Figs. 199, 204) 41
- 41(40). Bulge on "upper" surface of median apophysis keel-shaped (Figs. 198, 199); Amazon to Rio Grande do Sul State, Brazil (Map 5) *febrigi*
- Bulge on "upper" margin pointed (Fig. 204); Bolivia, Argentina (Map 5) *molle*
- 42(40). Median apophysis wide and terminal apophysis as in Figure 184 *malleri*
- Median apophysis narrow and terminal apophysis as in Figure 135; Minas Gerais State, Brazil (Map 5) *klossi*
- 43(37). Terminal apophysis strongly curved and pointed overhanging the conductor as in Figure 210; Mato Grosso State, Brazil (Map 5) *gima*
- Terminal apophysis otherwise 44
- 44(43). Terminal apophysis surrounding small conductor as in Figure 385; Costa Rica (Map 6) *viejo*
- Terminal apophysis and conductor otherwise 45
- 45(44). Terminal apophysis small, cone-shaped as in Figure 367; Peru *comaina*
- Terminal apophysis otherwise 46
- 46(45). Terminal apophysis reaching "top" of conductor or overhanging conductor (Figs. 141, 152, 157, 165, 172, 178, 345) 47
- Terminal apophysis barely touching conductor (Figs. 198, 367, 369, 402) 53
- 47(46). Distal part of terminal apophysis triangular as in Figure 345; Venezuela (Map 6) *aragua*
- Terminal apophysis otherwise 48
- 48(47). Tip of terminal apophysis with upper edge straight as in Figure 172; Panama (Map 4) *willisi*
- Tip of terminal apophysis with upper edge curved and pointing to median apophysis (Figs. 141, 152, 157, 165, 178) 49
- 49(48). Abdomen with about 14 tubercles (Fig. 140); Argentina (Map 5) *mastophoroides*
- Abdomen with only an anterior pair of tubercles or humps 50
- 50(49). Median apophysis with neck, widening towards tip (Figs. 178, 179); Colombia, Ecuador (Map 5) *tumida*
- Median apophysis otherwise 51
- 51(50). Median apophysis distally blunt (Figs. 157, 158); Colombia, Ecuador (Map 5) *redondo*
- Median apophysis distally pointed (Figs. 153, 166); Brazil, Argentina 52
- 52(51). Overhanging portion of terminal apophysis wide as in Figure 152; Minas Gerais State, Brazil to Chile (Map 5) *venustula*
- Overhanging portion of terminal apophysis narrow as in Figure 165; Bolivia to Buenos Aires Prov., Argentina (Map 5) *lurida*
- 53(46). Distal end of terminal apophysis with shallow notch (Figs. 369, 402) 54
- Distal end of terminal apophysis pointed (Figs. 198, 345, 367) 55
- 54(53). Distal end of median apophysis prong slightly wider than section immedi-

- ately below and prong fairly straight (Fig. 369); Costa Rica (Map 6) *heredia*
- Median apophysis with an even taper and bent “up” (Fig. 402); Costa Rica to Amazon area (Map 6) *covillei*
- 55(53). Conductor extending above and beyond terminal apophysis (Fig. 198); Amazon to Rio Grande do Sul State, Brazil and Paraguay (Map 5) *fiebrigi*
- Conductor and terminal apophysis tips touching (Fig. 345); Venezuela (Map 6) *aragua*

Ocrepeira globosa (F. P.-Cambridge),
new combination

Figures 36–40; Map 4

Wixia globosa F. P.-Cambridge, 1904: 486, pl. 46, fig. 4, ♀. Female holotype from Tepetlapa, Guerrero State, Mexico, in BMNH no. 1905.4.28.2811, examined. Roewer, 1942: 882. Bonnet, 1959: 4829. Levi, 1976: 382, figs. 116–120, ♀ (not figs. 112, 121, 122, ♂).

Note. The male for *globosa* is unknown. Levi (1976) matched the male of *rufa* with *globosa* and matched the male of *clivosa* with *rufa* on the basis of a dorsal abdominal pattern. But now I find the pattern variable, and am uncertain if the match was correct.

Description. Female from Baja California Sur, Mexico. Cephalic region streaked gray and black on orange, eye tubercle and sides of thoracic region orange. Chelicerae light orange. Labium, endites brown. Sternum dusky orange underlain by white pigment. Coxae light orange; legs dusky orange with indistinct dark rings. Dorsum of abdomen with posterior paired curved black marks (Fig. 39); venter light dusky without marks. Posterior median eyes 1.3 diameters of anterior medians, laterals 0.6 diameter. Anterior median eyes 1.3 diameters apart. Posterior median eyes 2 diameters apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 2 diameters of anterior median eyes. Abdomen oval, with large cone-shaped, forward-pointing tubercles (Fig.

39). Total length 6.6 mm. Carapace 3.0 mm long, 2.7 wide, behind lateral eyes 1.6 wide. First femur 3.0 mm, patella and tibia 3.6, metatarsus 2.2, tarsus 0.7. Second patella and tibia 3.4 mm, third 2.1, fourth 3.4.

Variation. No two epigyna are alike. They vary in the shape of the outline and the extent of the ventral depression (Levi, 1976, figs 116–118; Figs. 36–38). However, all have the wide convex median plate in posterior view (Fig. 37) and a thin ventral posterior lip (Fig. 38). Total length of females 5.0 to 7.8 mm. Figures 36–38 were made from a female from Baja California Sur.

Diagnosis. As in *O. rufa*, all females of *O. globosa* have the clypeus height about equal to 2 diameters of the anterior median eyes, higher than that of most other species. The ventral depression of the epigynum (Fig. 36) and the shape of the posterior median plate (Fig. 37) separate *O. globosa* from *O. subrufa* (Figs. 41, 42).

Specimens Examined. UNITED STATES KANSAS *Bourbon Co*: Redfield, 15 Oct. 1963, ♀ (W., J. Ivie, AMNH). TEXAS *Dallas Co*: Dallas, ♀, Whire Creek, Dallas, ♀ (both S. Jones, MCZ). ARIZONA *Cochise Co*: South Fork, Cave Creek, Chiricahua Mts., 11 Sept. 1950, ♀ (W. J. Gertsch, AMNH). MEXICO *Sonora*: N end of Sierra de los Ajos, head Canyon de Evans, 28 Aug. 1970, ♀ (V. Roth, AMNH). *Baja California Sur*: Sierra de la Laguna, Cañon de la Zorra, 840 m, Paso de Cecilia Selva, ♀ (M. L. Jiménez, MLJ). *Durango*: Palos Colorado, 5 Aug. 1947, ♀ (W. J. Gertsch, AMNH).

Ocrepeira subrufa (F. P.-Cambridge),
new combination

Figures 41–47; Map 4

Wixia subrufa F. P.-Cambridge, 1904: 486, pl. 46, fig. 6, ♀. Female holotype from Chiacam [Depto. Alta Verapaz, 26 km E of Cobán, 700 m, 15°34'N, 90°06'W, old coffee plantation], Guatemala, in

BMNH, 1904: 486, examined. Roewer, 1942: 882. Bonnet, 1959: 4830.

Wixia sicula F. P.-Cambridge, 1904: 487, pl. 46, fig. 8, ♂. Male holotype from Teapa, Tabasco State, Mexico, in BMNH no. 1905.4.28.2818, examined. Roewer, 1942: 882. Bonnet, 1959: 4830. NEW SYNONYMY.

Wixia vulcani Kraus, 1955: 25, pl. 4, figs. 72-74, ♀. Female holotype from top of San Salvador Volcano, 1,965 m, El Salvador, in SMF, not examined. Brignoli, 1983: 281. NEW SYNONYMY.

Synonymy. The holotype of *W. subrufa* is damaged by insect pin holes. F. P.-Cambridge did not consider *W. sicula* and *W. subrufa* as belonging together, presumably because they came from different localities and had different dorsal markings. In 1976, I thought erroneously that because of dorsal markings the *sicula* male must belong to *W. rufa* and the male of *W. clivosa* to *W. globosa* (Levi, 1976).

The illustration for *W. vulcani* shows the characteristic features of *O. subrufa*.

Description. Female from Sacatepequez, Antigua, Guatemala. Carapace dark orange-brown with some white setae, sides of thoracic region darkest. Chelicerae, labium, endites orange-brown. Sternum dark orange-brown. Coxae dark orange; legs orange-brown with darker rings and patches. Dorsum of abdomen blackish brown anteriorly; posterior with some transverse dark bars; a light line between dark and light areas, and some scattered long black hairs (Fig. 44); venter black with two discrete white spots (Fig. 45). Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior

median eyes their diameter apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to one diameter of anterior median eyes. Abdomen with tubercles directed toward sides (Fig. 44). Total length 7.7 mm. Carapace 3.7 mm long, 3.1 wide, 1.8 wide behind lateral eyes. First femur 3.5 mm, patella and tibia 4.4, metatarsus 2.8, tarsus 1.0. Second patella and tibia 4.0 mm, third 2.7, fourth 3.9.

Male holotype of *W. sicula*. Color as in female, but sternum yellow with brown border and abdomen dorsum with a white anterior cardiac mark. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes slightly more than their diameter apart. Posterior median eyes 1.5 diameters apart. Height of clypeus equal to 0.9 diameter of anterior median eye. Third coxa with two macrosetae on right, one on left, fourth with one macroseta. Fourth trochanter with one macroseta. Total length 4.0 mm. Carapace 2.9 mm long, 2.4 wide. First femur 3.1 mm, patella and tibia 3.6, metatarsus 2.1, tarsus 0.9. Second patella and tibia 2.9 mm, third 1.9, fourth 2.5.

Note. The male was matched with the female because of similar ventral markings on the abdomen (Fig. 45). One collection has males and females together.

Variation. Total length of females 6.2 to 9.0 mm, of males 4.0 to 6.4. The male from Guatemala had the ocular quadrangle slightly narrower behind than in front and the carapace 2.7 mm wide, 1.7 behind

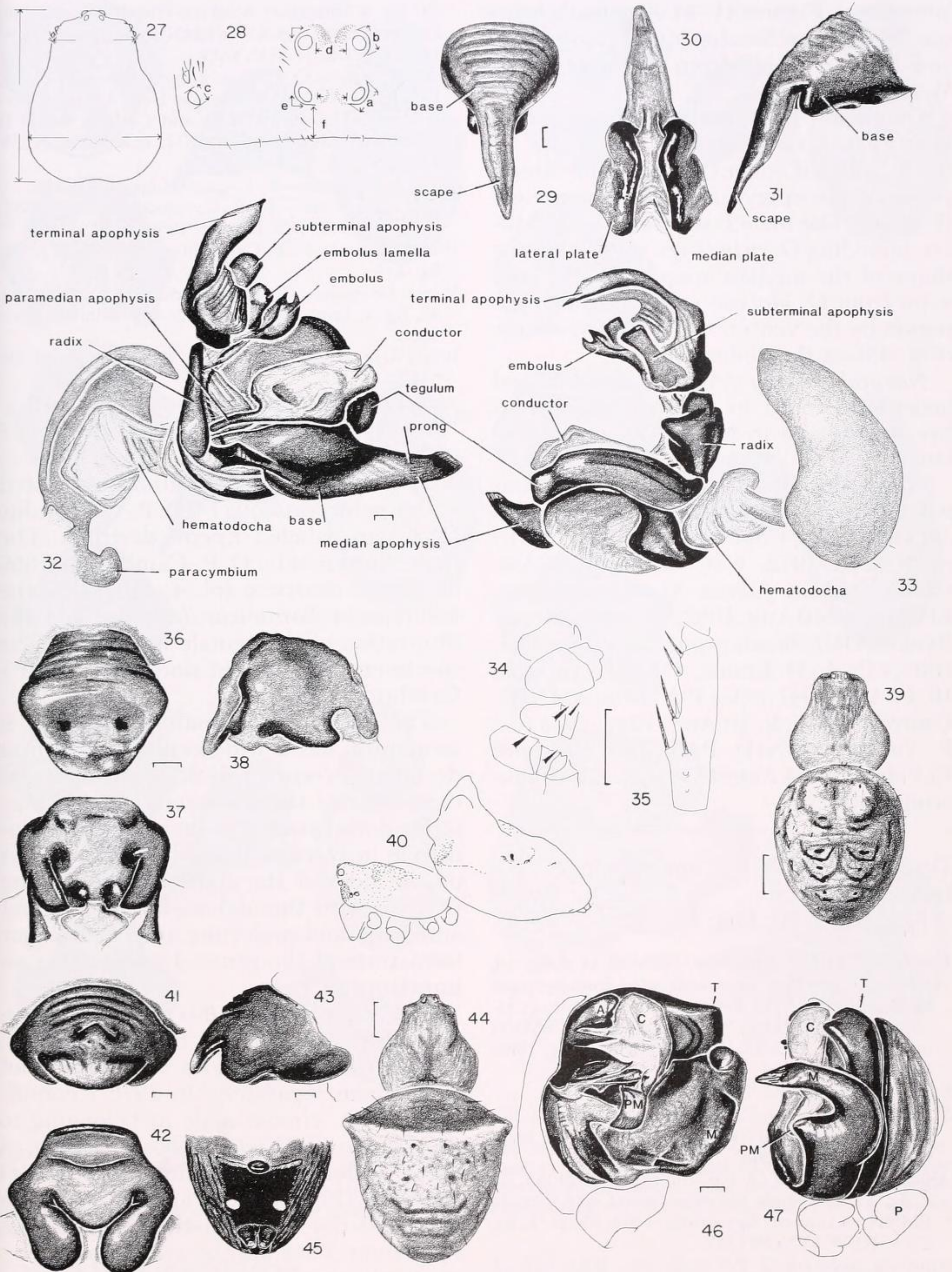
Figures 27-35. *Ocrepeira* morphology. 27-31, female *O. venustula* (Chile). 27, carapace. 28, eye region and clypeus. 29-31, epigynum. 29, ventral. 30, posterior. 31, lateral. 32, 33, male *O. venustula* (Chile), left palpus pulled apart. 34, 35, male *O. serrallesi*. 34, left coxae. 35, left second tibia, ventral.

Figures 36-40. *O. globosa* (F. P.-Cambridge), female. 36-38, epigynum. 36, ventral. 37, posterior. 38, lateral. 39, dorsal. 40, lateral.

Figures 41-47. *O. subrufa* (F. P.-Cambridge). 41-45, female. 41-43, epigynum. 41, ventral. 42, posterior. 43, lateral. 44, dorsal. 45, abdomen, ventral. 46, 47, male palpus.

Abbreviations. A, terminal apophysis; C, conductor; M, median apophysis; PM, paramedian apophysis; T, tegulum.

Scale lines. 1.0 mm, genitalia 0.1 mm.



lateral eyes. Figures 41–44 were made from specimens from Sacatepequez, Guatemala, and Figures 46, 47 from the holotype of *W. sicula*.

Diagnosis. The female can be separated from that of *O. globosa* (Figs. 36–38) by the sclerotized convex median and lateral plates of the epigynum in posterior view (Fig. 42). The male is separated from others, including *O. rufa* (Figs. 69–70), by the shape of the median apophysis, and both sexes from *O. globosa* and *O. rufa* in the region by the ventral white spots on black (Fig. 45) on the abdomen.

Natural History. A female was collected in a cloud forest in Chiapas, another in live-oak foliage in Metaquesquitla, Guatemala.

Specimens Examined. MEXICO *Chiapas*: Chiapas-Oaxaca border, 21 km W Rizo del Oro, along ridge of Cerro Baul, 1,615 m, 6 Sept. 1972, ♀ (C. Mullinex, CAS). GUATEMALA *Jalapa*: Mataquesquitla, El Carrizal, 10 Aug. 1982, ♀, 7 imm. (Fend-Renkes, DU). *Sacatepequez*: Antigua, Oct. 1965, ♀ (N. L. H. Krauss, AMNH); Antigua, 16, 17 Aug. 1947, ♂ (C., P. Vaurie, AMNH). *Quiché*: Nebaj, 9, 10 Aug. 1947, 2♀, ♂ (C., P. Vaurie, AMNH). PANAMA *Chiriquí*: El Volcán, 9–14 Aug. 1950, ♀ (A. M. Chickering, MCZ).

Ocrepeira rufa (O. P.-Cambridge),
new combination

Figures 48–70; Map 4

Epeira rufa O. P.-Cambridge, 1889: 35, pl. 6, fig. 18, ♀. Female lectotype here designated from between El Petén [Depto. El Petén] and Chicoyoi [Chicoyoi, 15°23'N, 90°21'W], Guatemala, in BMNH no. 1905.4.28.2812–15, examined. Keyserling, 1892: 120, pl. 6, fig. 88, ♀.

Epeira consequa:—O. P.-Cambridge, 1889: 36.

Epeira destricta:—O. P.-Cambridge, 1889, pl. 4, fig. 14, ♀ (not male holotype, fig. 13). Illustrations to go with *Epeira consequa*.

Amamra bituberosa O. P.-Cambridge, 1889: 55, pl. 3, fig. 11, ♀. Female holotype from Costa Rica, in BMNH, examined. Keyserling, 1892: 45, pl. 2, fig. 27, ♀. NEW SYNONYMY.

Amamra gibbifera O. P.-Cambridge, 1894: 137, pl. 18, fig. 10, ♀. Two female syntypes from Guerrero, Mexico, in BMNH, examined. NEW SYNONYMY.

?*Amamra turrigera* O. P.-Cambridge, 1898: 251, pl.

31, fig. 6. Immature holotype from Chilpancingo, Guerrero State, Mexico, in BMNH, examined. NEW DOUBTFUL SYNONYMY.

Amamra clivosa O. P.-Cambridge, 1898: 270, pl. 36, figs. 1, 2, ♀, ♂. Female holotype from Amula, Guerrero State, between Tixtla and Chilapa, 6,000 ft [2,000 m], Mexico, in BMNH, examined. NEW SYNONYMY.

Wixia bituberosa:—F. P.-Cambridge, 1904: 485.

Wixia gibbifera:—F. P.-Cambridge, 1904: 882. Roewer, 1942: 882. Bonnet, 1959: 4829.

Wixia clivosa:—F. P.-Cambridge, 1904: 485, p. 46, fig. 2, ♀.

Wixia turrigera:—F. P.-Cambridge, 1904: 486, pl. 46, fig. 7, imm. Roewer, 1942: 882. Bonnet, 1959: 4830.

Wixia rufa:—F. P.-Cambridge, 1904: 486, pl. 46, fig. 5, ♀.

Aranea consequa:—F. P.-Cambridge, 1904: 518.

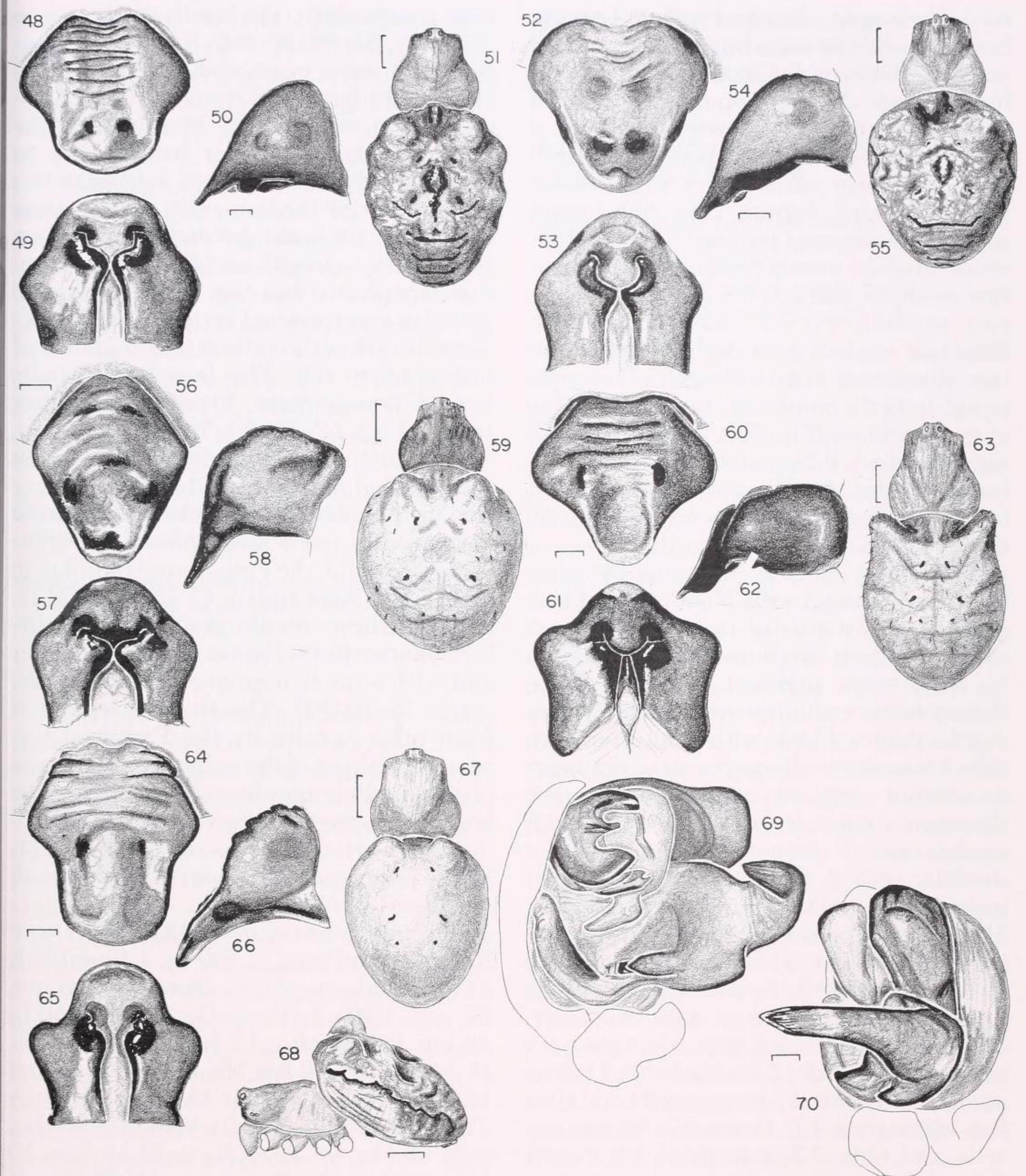
Wixia globosa:—Levi, 1976: 382, figs. 121, 122, ♂ only, not ♀.

Synonymy. The illustrations associated with *Epeira consequa* by O. P.-Cambridge (1889) are labeled *Epeira destricta*. The male illustrated by O. P.-Cambridge, 1889 as *Epeira destricta* (pl. 4, fig. 13) is the holotype of *Parawixia destricta*, but the illustration of the female is *O. rufa*. The specimen has been lost since before F. P.-Cambridge (1904).

The holotype of *Amamra turrigera* is immature, has a wide cephalic region as do other *Ocrepeira*, lacks white spots on the venter of the abdomen, and has posterior dorsal transverse bars on the abdomen as in *O. rufa*; it also has slight bulges on the sides of the abdomen as do some *O. rufa*, and the abdomen is drawn out anteriorly and projecting as in some other immatures of the genus. I assume it is an immature *O. rufa*.

F. P.-Cambridge (1904) considered *clivosa* (Figs. 56–59) and *bituberosa* (Figs. 64–67) the same species as *O. rufa* but listed them separately. In 1976 I considered the *A. clivosa* male as belonging to the female of *Wixia globosa* because of dorsal abdominal coloration. *Amamra bituberosa* (Figs. 64–67) and *A. gibbifera* (Figs. 60–63) differ in the shape of the epigynum. They may be a separate species or, much more likely, variations of *O. rufa*.

Description. Female holotype of *Epeira rufa*. Carapace dark brown, eye area light-



Figures 48-70. *Ocrepeira rufa* (O. P.-Cambridge). 48-68, female. 48-50, 52-54, 56-58, 60-62, 64-66, epigynum. 48, 52, 56, 60, 64, ventral. 49, 53, 57, 61, 65, posterior. 50, 54, 58, 62, 66, lateral. 51, 55, 59, 63, 67, dorsal. 68, lateral. 48-51, lectotype of *rufa* (Guatemala). 52-55, (Durango State, Mexico). 56-59, lectotype of *clivosa* (Guerrero State, Mexico). 60-63, syntype of *gibbifera* (Guerrero State, Mexico). 64-67, holotype of *bituberosa* (Costa Rica). 68, (Sonora State, Mexico). 69-70, male left palpus (Durango State, Mexico).

Scale lines. 1.0 mm, genitalia 0.1 mm.

est. Chelicerae orange-brown. Labium brown, endites orange-brown. Sternum orange, border brown. Coxae grayish yellow-brown; legs dark brown with indistinct rings. Dorsum of abdomen well marked with posterior transverse bars whose ends bend anteriorly, sides darker with distinct margin toward dorsum (Fig. 68); venter with white pigment covered by dark. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes 2 diameters apart. Posterior median eyes slightly more than two diameters apart. Height of clypeus equal to 2 diameters of anterior median eyes. Abdomen (Fig. 51). Total length 6.5 mm. Carapace 3.2 mm long, 2.5 wide. First femur 3.0 mm, patella and tibia 3.8, metatarsus 2.2, tarsus 1.1. Second patella and tibia 3.5 mm, third 2.2, fourth 3.3.

Male from Encino, Durango, Mexico. Carapace orange with black setae, black clypeus, and a pair of brown patches on cephalic region. Sternum orange underlain by some white pigment. Anterior of abdomen between humps with white cardiac mark. Venter black with white on each side. Posterior median eyes same diameter as anterior medians, anterior laterals 0.6 diameter, posterior laterals 0.6. Anterior median eyes 2 diameters apart. Posterior median eyes 3 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus 1.4 diameters of the anterior median eye. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Abdomen with two tubercles. Total length 5.2 mm. Carapace 2.9 mm long, 2.3 wide, 1.2 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 1.9, tarsus 0.7. Second patella and tibia 2.7 mm, third 1.8, fourth 2.6. Abdomen about 3.1 mm long.

Note. Males and females are the most often collected species in Mexico and both sexes have similar distribution. But I am still uncertain that they belong together.

Variation. Females are quite variable in markings, shape of the abdomen (Figs. 51, 55, 59, 63, 67), and outline of the epigy-

num, particularly the width of the scape (Figs. 48, 52, 56, 60, 64). The seminal receptacles were examined and illustrated but no significant differences found. A female from the State of Morelos had the ocular quadrangle wider behind than in front, the clypeus equal to 1.4 diameters of the anterior median eyes, the carapace 2.3 wide, 1.4 wide behind lateral eyes. Males vary in length and thickness of median apophysis, but not in the E-shaped embolus and terminal apophysis (Fig. 69). Total length of females 6.0 to 8.2 mm, of males 4.9 to 6.2. The female and male from Durango State, Mexico, were illustrated (Figs. 52-55, 69, 70).

Diagnosis. The high clypeus and indistinct ventral markings of the abdomen are similar to those of *O. globosa* and separate both species from most others. The posterior aspect of the epigynum is similar to that of the West Indian *O. branta* and *O. serrallesi*; however, the ventral outline differs: shorter in *O. branta* (Fig. 71), longer and with a median groove in *O. serrallesi* (Figs. 78, 83-85). The male is separated from other species by the E-shaped terminal apophysis of the palpus and the shape of the median apophysis, in particular its basal, cone-shaped offset (Figs. 69, 70).

Natural History. Females were collected in pine forest in Chiapas and in oak woodland in Oaxaca.

Specimens Examined. MEXICO *Nuevo León*: Cerro Potosí, 2,400 m, 4 June 1983, ♂ (W. Maddison, MCZ). *Durango*: Encino, 27 July 1947, ♂ (W. J. Gertsch, AMNH); 16 km W El Salto, 15 July 1964, ♀ (J. E. H. M., MCZ); 10 km NE El Salto, 11 Aug. 1947, ♀ (W. J. Gertsch, AMNH). *Nayarit*: Tepic, 22 Sept. 1953, ♂ (B. Malkin, AMNH), ♀ (N. Banks, MCZ). *Jalisco*: El Molino, 10 July 1956, ♀ (R. Dreisbach, MCZ). *Veracruz*: Orizaba, 6 July 1963, ♀ (D. Bixler, MCZ). *Hidalgo*: Tenango, 5 Oct. 1947, ♀ (H. Wagner, AMNH). *Distrito Federal*: Contreras, 2,600 m, 23 July 1947, ♀ (H. Wagner, AMNH). *Puebla*: Huauchinango, 7 Oct. 1947, ♀ (H. Wagner, AMNH); nr. Villa Juarez, 26 Aug. 1946, 2♂ (J. Good-

night, Bordas, AMNH). *Morelos*: Cuernavaca, Aug. 1944, ♀, July 1965, ♀ (N. L. H. Krauss, AMNH). *Oaxaca*: Monte Alban ruin, 17°02'N, 96°47'W, 5 Aug. 1983, ♂ (W. Maddison, MCZ); 27 km SW Valle Nacion, 96.4°N, 17.6°W, 24 June 1983, ♂, 2 imm. (W. Maddison, MCZ); 39 km NW Oaxaca, Hwy. 190, 1,700 m, 96°57'N, 17°17'W, 6 Aug. 1983, ♀ (W. Maddison, R. S. Anderson, MCZ). *Tabasco*: Teapa, ♂ (BMNH). *Chiapas*: Grutas de San Cristobal, 16 km SE San Cristobal, Hwy. 190, 27 July 1983, ♀ (W. Maddison, MCZ); 5 km W San Cristobal de las Casas, Hwy. 190, 2,100 m, 27–28 July 1983, ♀ (W. Maddison, R. S. Anderson, MCZ). COSTA RICA nr. San José, ♀ (Valerio, MCZ).

Ocrepeira branta new species
Figures 71–74; Map 4

Holotype. Female holotype from Blue Mountains, SW side of Main Range, 3,000–4,000 ft [900–1,200 m], Jamaica, 13 Aug. 1934 (P. J. Darlington), in MCZ. The specific name is an arbitrary combination of letters.

Description. Female holotype. Carapace reddish brown with dark gray band across the carapace (Fig. 74). Chelicerae yellowish to dark brown. Labium, endites yellowish to brown. Sternum orange, darkest on sides. Coxae yellowish; legs yellowish, ringed dusky brown. Dorsum of abdomen with white and dark marks (Fig. 74); venter black. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 2.1 diameters apart. Ocular quadrangle slightly wider than long, wider behind than in front. Height of clypeus equal to one diameter of anterior median eyes. Abdomen narrow, pointed anteriorly (Fig. 74). Total length 6.2 mm. Carapace 2.8 mm long, 2.6 wide, 1.7 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.8. Second patella and tibia 3.3 mm, third 2.1, fourth 3.1.

Diagnosis. This single specimen differs from *O. serrallesi* by the wider cephalic region, a dark band across the hairy car-

apace (Fig. 74), and in lacking the pair of white spots on the venter of the abdomen. The epigynum, unlike that of *O. serrallesi*, is wider than long (Figs. 71–73).

Ocrepeira potosi new species
Figures 75–77; Map 4

Holotype. Male holotype from road up to microwave tower on Cerro Potosí, 24°52'N, 100°14'W, 2,400 m, Nuevo León State, Mexico, 4 June 1983 (W. Maddison), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Cephalic region of carapace black; black area touches thoracic groove and has a lobe on each side of cephalic area (Fig. 77), thoracic portion orange. Chelicerae dusky orange. Labium, endites orange. Sternum yellowish underlain by some white pigment. Coxae yellowish, legs with indistinct black rings. Dorsum of abdomen spotted dark and light brown with white cardiac mark framed by black; sides with undulating black line; venter light dusky without marks. Posterior median eyes same diameter as anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.7. Anterior median eyes their diameter apart. Posterior median eyes slightly less than 2 diameters apart. Ocular quadrangle almost square, slightly wider behind than in front. Height of clypeus equal to 1.5 diameters of anterior median eyes. Palpal patella with one macroseta. Third, fourth coxae each with one macroseta. Third and fourth trochanters with one macroseta. Abdomen with a pair of humps. Total length 5.7 mm. Carapace 2.9 mm long, 2.5 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.5, metatarsus 2.0, tarsus 1.1. Second patella and tibia 2.9 mm, third 1.9, fourth 2.8.

Note. One of the females cited as *O. rufa* may belong with this male.

Diagnosis. The shape of the median apophysis differs from that of *O. rufa* (Figs. 69, 70): the prong is longer (Figs. 75, 76) and there are two knobs on the “lower” edge, where the *O. rufa* male has an offset cone (Fig. 69).

Ocrepeira serrallesi (Bryant),
new combination

Figures 78–87; Map 4

Neoscona vulgaris:—Bryant, 1940: 342; 1945: 380.Misidentification, not *Neoscona nautica* (L. Koch).*Wixia serrallesi* Bryant, 1947: 90, figs. 2, 3, ♀, ♂. Male holotype and female paratype from Mona Island, West Indies, in MCZ, examined. Brignoli, 1983: 281.*Wixia pujalsi* Archer, 1958: 14, figs. 31, 32, ♀. Female holotype from Chirivico [Santiago Prov.], Cuba, in AMNH, examined. Brignoli, 1983: 281. NEW SYNONYMY.*Wixia vaurieorum* Archer, 1966: 131, pl. 2, fig. 10, ♀. Female holotype from Hembra, Golden Grove [?], Jamaica, in AMNH, examined. Brignoli, 1983: 281. NEW SYNONYMY.

Note. The epigyna of the types of *W. pujalsi* (Figs. 84, 86) and *W. vaurieorum* (Fig. 85) have a different outline, especially in ventral view. There are not enough specimens available to decide if this is individual or geographic variation.

Numerous localities in Jamaica have the name Golden Grove.

Description. Female paratype of *W. serrallesi* from type locality. Carapace orange-brown. Chelicerae, labium, endites brown. Sternum orange-brown underlain by white pigment. Coxae brown; legs dark brown with light orange rings. Dorsum of abdomen with black marks on gray (Fig. 81); venter black with a pair of rectangular white spots two thirds the distance between epigynum and spinnerets (Fig. 82). Posterior median eyes 0.9 diameter of anterior medians, anterior laterals 0.6 diameter, posterior 0.7. Anterior median eyes slightly less than their diameter apart. Posterior median eyes 1.2 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Chelicerae with three teeth on anterior margin, the middle one largest; two teeth on posterior margin. Abdomen with two humps (Fig. 81). Total length 9.0 mm.

Carapace 4.1 mm long, 3.6 wide, 2.1 wide behind lateral eyes. First femur 3.7 mm, patella and tibia 4.7, metatarsus 3.0, tarsus 1.1. Second patella and tibia 4.5 mm, third 2.9, fourth 4.1. Abdomen 6.7 mm high.

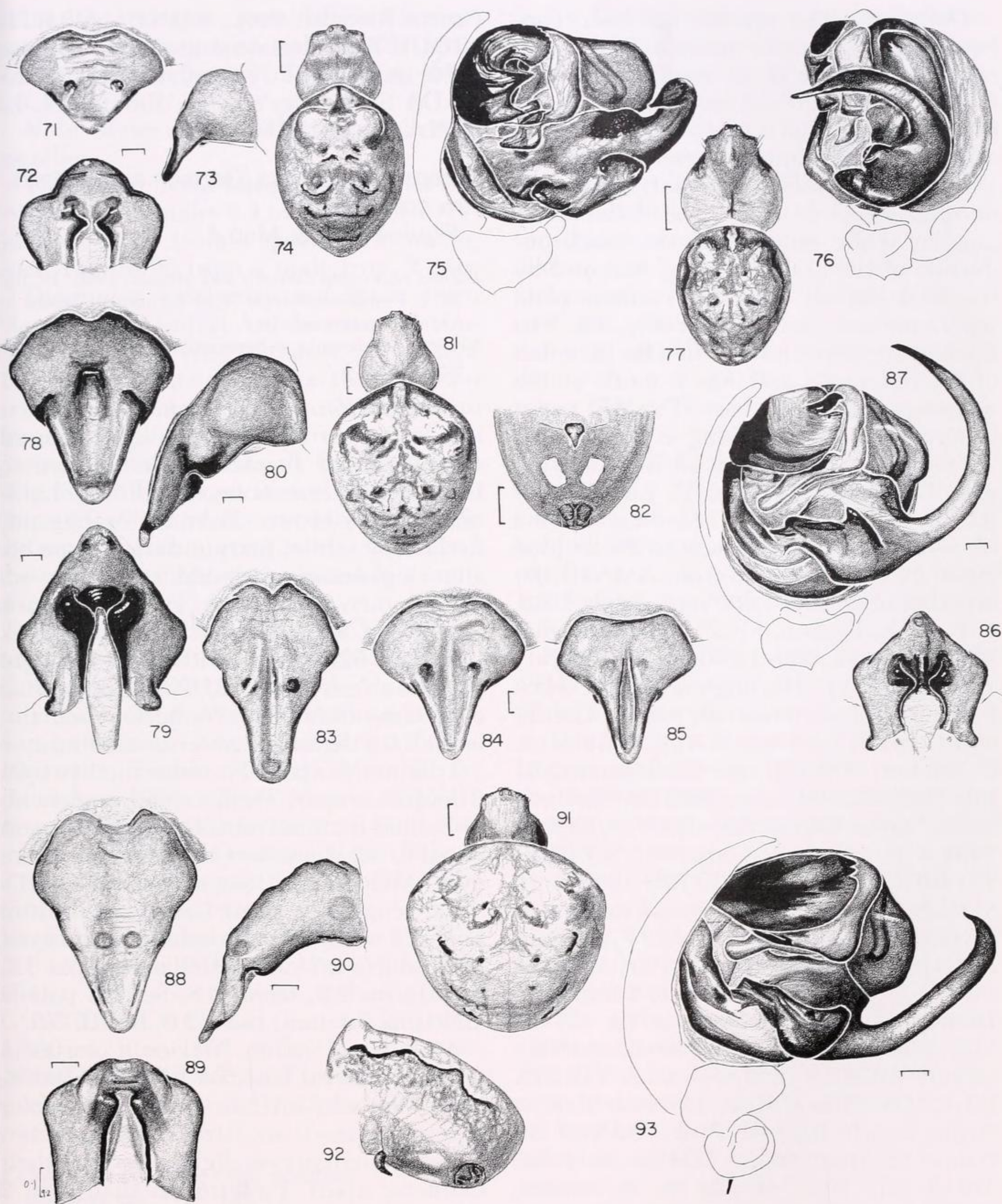
Male holotype of *W. serrallesi*. Color lighter than in female; sternum orange underlain by white pigment, coxae orange. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart, slightly more than 2 diameters from laterals. Posterior median eyes 2 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 0.9 diameter of anterior median eyes. Chelicerae with four teeth on anterior margin, three on posterior margin. Third, fourth coxae each with one macroseta. Third, fourth trochanters each with one macroseta. Abdomen with humps less distinct than female. Total length 6.3 mm. Carapace 3.2 mm long, 2.7 wide, 1.4 wide behind lateral eyes. First femur 3.6 mm, patella and tibia 3.7, metatarsus 2.3, tarsus 0.9. Second patella and tibia 3.7 mm, third 2.3, fourth 3.0. Abdomen 3.6 mm high.

Note. Males and females were collected together.

Variation. Total length of females 5.6 to 10.3 mm, of males 4.8 to 6.4. The epigynum is quite variable in shape (Figs. 78–80, 83–86); the few males that are available differ only slightly in the shape of the terminal apophysis. It is not known if this is individual or geographic variation. Figures 78–81 were made from the paratype and Figure 87 was made from the holotype of *W. serrallesi*. Figure 84 was made from the holotype of *W. pujalsi*, Figures 85, 86 were made from that of *W. vaurieorum*, and Figure 83 was made from a specimen from Thatch Key, U. S. Virgin Islands. These illustrations show the large variation.

Figures 71–74. *Ocrepeira branta* n. sp., female. 71–73, epigynum. 71, ventral. 72, posterior. 73, lateral. 74, dorsal.

Figures 75–77. *O. potosi* n. sp., male. 75, 76, left palpus. 77, dorsal.



Figures 78–87. *O. serrallesi* (Bryant). 78–86, female. 78–80, 83–86, epigynum. 78, 83–85, ventral. 79, 86, posterior. 80, lateral. 81, dorsal. 82, abdomen, ventral. 87, male palpus. 78–80, 81, 87, Mona Island. 83, U.S. Virgin Islands, Thatch Key. 84, Cuba, holotype of *pujalsi*. 85, 86, Jamaica, holotype of *vaurieorum*. 87, Mona Island, holotype of *serrallesi*.

Figures 88–93. *O. redempta* (Gertsch and Mulaik). 88–92, female. 88–90, epigynum. 88, ventral. 89, posterior. 90, lateral. 91, dorsal. 92, lateral. 93, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

Diagnosis. This species has been confused with *Neoscona nautica*. The posterior median eyes of *N. nautica* are on a relatively flat head and face up, while those of *Ocrepeira* are on a joint swelling, farther apart and face almost sideways (Fig. 81). *Ocrepeira serrallesi* differs from *O. redempta* and *O. branta* by the distinct rectangular white patches on the black underside of the abdomen (Fig. 82), and by the flask-shaped posterior median plate with a narrow, ventral neck (Fig. 79). The median apophysis is more slender than that of *O. redempta* and has a tooth at the widest portion of its base (Fig. 87) and a terminal apophysis as long as high.

Specimens Examined. CUBA *Cienfuegos*: Topes de Collantes, 17 July 1956, ♀ (C. P. Vaurie, AMNH). *Santiago*: Loma (Pico) de Gato, Sierra Maestra, 26–28 June 1959, 2♀ (W. M. Sanderson, AMNH); Sierra de Cobre, 900–1,200 m, 3–7 July 1936, ♀ (P. J. Darlington, MCZ). *Guantanamo*: Mts. N Imias, 900–1,200 m, 25–28 July 1936, 2♀ (P. J. Darlington, MCZ). *HISPANIOLA Dominican Republic*: Cordillera Central, La Vega, 9 Aug. 1958, ♀ (A. F. Archer, AMNH); nr. La Romana, 31 July 1935, 2♀, ♂ (Hassler, AMNH); Mt. Busú, Sierra Martín García, 300–1,300 m, 25 June 1983, ♂ (G. Flores, A. Gross, MCZ). *PUERTO RICO* Culebra Isl., 19 July 1965, ♂ (F. Mackenzie, AMNH); Bosque Estadual de Maricao, 23 July 1958, ♂ (A. F. Archer, AMNH); Desecheo Isl., 28 Mar. 1961, 4♀ (MCZ), 27–29 May 1965, ♀, ♂, 2imm. (H. Heatwole, AMNH); Muertos Isl., 27–29 May 1959, 3♀ (Jordan, Martorell, AMNH), 25 June 1959, 2♂ (AMNH). *U. S. VIRGIN ISLANDS* Thatch Key, 12 Nov. 1966, ♀ (Univ. Puerto Rico Isl. Proj., AMNH). *St. Croix*: Christiansted, ♂ (ZMK). *St. John*: 10–12 July 1958, 6♀, 2♂ (A. F. Archer, AMNH); nr. Cinnamon and Hart Bays, 1–4 Aug. 1976, ♀ (D. E., D. N. Rosen, AMNH). *BRITISH VIRGIN ISLANDS* Cooper Isl., 25 July 1986, ♂ (J. Lazell, J. Bush, USNM); Little Camanoe, 2 July 1965, ♂ (Univ. Puerto Rico Isl. Proj., AMNH); Tortola, Greater Camanoe Isl., 1 July 1965, ♀ (Univ.

Puerto Rico Isl. Proj., AMNH). *MARTINIQUE* Trois Ilets Ansemitan, 10–11 June 1960, imm. (C., P. Vaurie, AMNH). *GRENADE* St. George's, Sept. 1967, ♀ (N. L. H. Krauss, AMNH).

Ocrepeira redempta (Gertsch and Mulaik), new combination

Figures 88–93; Map 4

Aranea redempta Gertsch and Mulaik, 1936: 18, fig. 39, ♀. Female holotype from Edinburg, Texas, in AMNH, examined.

Neoscona redempta:—Berman and Levi, 1971: 499, figs. 121–124, ♀.

Description. Female from Sonora, Mexico. Carapace orange with light colored setae, sides of thoracic region brown to black. Chelicerae orange to brown. Labium, endites brown. Sternum orange underlain by white, margin dark. Coxae orange; legs orange with dark rings. Dorsum of abdomen with white, gray, and black marks (Fig. 91); sides with undulating black line (Fig. 92); venter with a pair of light patches on gray (Fig. 92). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 2 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.5 diameters of anterior median eyes. Abdomen as long as wide (Fig. 91). Total length 7.8 mm. Carapace 2.8 mm long, 2.6 wide, 1.4 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.2, metatarsus 2.0, tarsus 0.8. Second patella and tibia 3.1 mm, third 2.0, fourth 3.0.

Male from Sonora, Mexico. Color as in female. Lateral lines on abdomen indistinct. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes slightly less than their diameter apart. Posterior median eyes 2 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Third and fourth trochanters with one macroseta. Total length 4.4 mm. Carapace 2.7 mm long, 2.3 wide, 1.2 wide

behind lateral eyes. First femur 2.9 mm, patella and tibia 3.4, metatarsus 1.6, tarsus 0.8. Second patella and tibia 2.7 mm, third 1.8, fourth 2.5.

Note. Males and females were collected together.

Variation. Total length of females 5.7 to 7.8 mm, of males 4.4 to 5.0. Figures 88–92 were made from a specimen from Sonora, Figure 93 from a male from Texas.

Diagnosis. *Ocrepeira redempta* from Mexico and Central America can be confused with the West Indian *O. serrallesi*. The ventral white patches on the abdomen are less distinct than in the West Indian species (Fig. 92). The ventral part of the posterior median plate of the epigynum (Fig. 89) differs from that of *O. serrallesi* (Figs. 79, 86) and the median apophysis differs in that the prong is less curved and the widest part above the base has a semi-circular offset (Fig. 93)

Specimens Examined. MEXICO *Sonora*: Minas Nuevas, 8 Aug. 1952, ♀, ♂ (P., C. Vaurie, AMNH); 16 km W Alamos, 19 July 1954, 2♀, ♂ (W. J. Gertsch, AMNH). *San Luis Potosí*: hotel, Covadonga, Valles, 1961, ♀ (L. Steude, AMNH). *Nayarit*: Tepic, 4 Aug. 1953, ♀ (P., C. Vaurie, AMNH). *Baja California Norte*: 24 km S Santo Domingo, 4 Oct. 1941, ♀ (E. Ross, Bohart, CAS). *Baja California Sur*: Comitán, Matorral Sarcocaulle, 4 Oct. 1987, ♀ (M. L. Jiménez, MLJ); Comitán, 2 Sept. 1987, 2♂ (M. L. Jiménez, MLJ); 16 km NW La Paz, 6 Oct. 1941, ♀ (E. Ross, Bohart, CAS). GUATEMALA Ciudad Guatemala, 1,400–1,500 m, June 1981, ♀ (N. L. H. Krauss, AMNH). HONDURAS Tsecucigajo [?Tegucigalpa], 18 June, ♀ (H. Dybas, AMNH).

Ocrepeira camaca new species

Figures 94–100; Map 5

Holotype. Female holotype from Fazenda São Roque, Camacan [Camacã], Bahia State, Brazil, 2 Dec. 1977 (J. S. Santos), in MCN no. 11044. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, anterior of cephalic area

dusky. Chelicerae orange with a dusky reticulate pattern. Labium, endites orange. Sternum light orange. Coxae light orange, legs with indistinct dusky rings. Dorsum of abdomen with anterior edge black and with paired diagonal black marks on white (Fig. 97); venter dusky with two indistinct white patches (Fig. 98). Cephalic area of carapace unusually narrow. Posterior median eyes 0.7 diameter of anterior medians, anterior laterals 0.7 diameter, posterior 0.6. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Abdomen oval without distinct humps (Fig. 97). Total length 9.6 mm. Carapace 4.5 mm long, 4.1 wide, 1.8 wide behind lateral eyes. First femur 4.6 mm, patella and tibia 5.8, metatarsus 3.9, tarsus 1.3. Second patella and tibia 5.6 mm, third 3.3, fourth 4.9.

Male from Itamarajú, Bahia, Brazil. Color as in female but some white pigment posteriorly in cephalic area of carapace, and sternum underlain by white pigment. Legs more distinctly ringed than those of the female. Posterior median eyes same diameter as anterior medians, laterals 0.5 diameter. Anterior median eyes 0.6 diameter apart. Posterior median eyes 1.8 diameters apart. Posterior median eyes on swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Palpal patella with one macroseta. Third, fourth coxae each with one macroseta. Third and fourth trochanters each with one macroseta. Abdomen oval without tubercles. Total length 5.4 mm. Carapace 3.1 mm long, 2.9 wide, 1.6 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 4.2, metatarsus 2.6, tarsus 0.9. Second patella and tibia 3.9 mm, third 2.3, fourth 3.0.

Note. Males and females were collected at the same locality, and have a similar abdomen. But the eyes differ: those of the male have the posterior median eyes on a larger swelling than those of the female.

Variation. Total length of females 11.3 to 9.6 mm. The female from Curitiba has no white spots on the venter of the abdomen, has eyes on a swelling, and has the scape of the epigynum torn off. Figures 94–98 were made from the holotype, and Figures 99, 100 from a male from Itamarajú.

Diagnosis. The shape of the epigynum (Figs. 94–96) and the median apophysis of the palpus (Figs. 99, 100) resemble that of the West Indian *O. serrallesi* (Figs. 78–87), and differ from all other Brazilian species.

Records Examined. BRAZIL Bahia: Fazenda N. S. Neves, Itamarajú, 9 Oct. 1978, ♀, ♂ (J. S. Santos, MCN 10324, 11018). Paraná: Curitiba, 1945, ♀ (Gengnagel, MZSP 9647).

Ocrepeira arturi new species Figures 101–107; Map 4

Holotype. Female holotype and one male and one immature paratype from Barro Colorado Island, Lago Gatún, Panamá Prov., Panamá, May 1964 (A. M. Chickering), in MCZ. The species is named after the collector.

Description. Female holotype. Carapace orange. Chelicerae, labium, endites orange. Sternum orange, underlain by some white pigment. Coxae, legs orange. Dorsum of abdomen white, gray, and black (Fig. 104); venter black with a pair of white spots (Fig. 105). Posterior median eyes 1.1 diameters of anterior medians, anterior laterals 0.8 diameter, posterior laterals 1 diameter. Anterior median eyes 1.7 diameters apart. Posterior median eyes 2.5 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.7 diameters of anterior median eyes. Abdomen with an anterior median

hump in addition to the anterior lateral ones, and two pairs of swellings on sides (Fig. 104). Total length 7.2 mm. Carapace 3.5 mm long, 3.2 wide, 1.8 wide behind lateral eyes. First femur 4.0 mm, patella and tibia 4.5, metatarsus 2.9, tarsus 1.1. Second patella and tibia 4.3 mm, third 2.7, fourth 3.9. Abdomen 5.5 mm long.

Male paratype. Color as in female, but legs with darker orange rings. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes two diameters apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Third, fourth trochanters with one macroseta. Abdomen with anterior median tubercle. Total length 6.2 mm. Carapace 3.8 mm long, 3.5 wide, 1.8 wide behind lateral eyes. First femur 4.4 mm, patella and tibia 5.1, metatarsus 2.9, tarsus 1.1. Second patella and tibia 4.7 mm, third 2.7, fourth 3.8. Abdomen 4.5 mm long.

Note. Males and females were collected together.

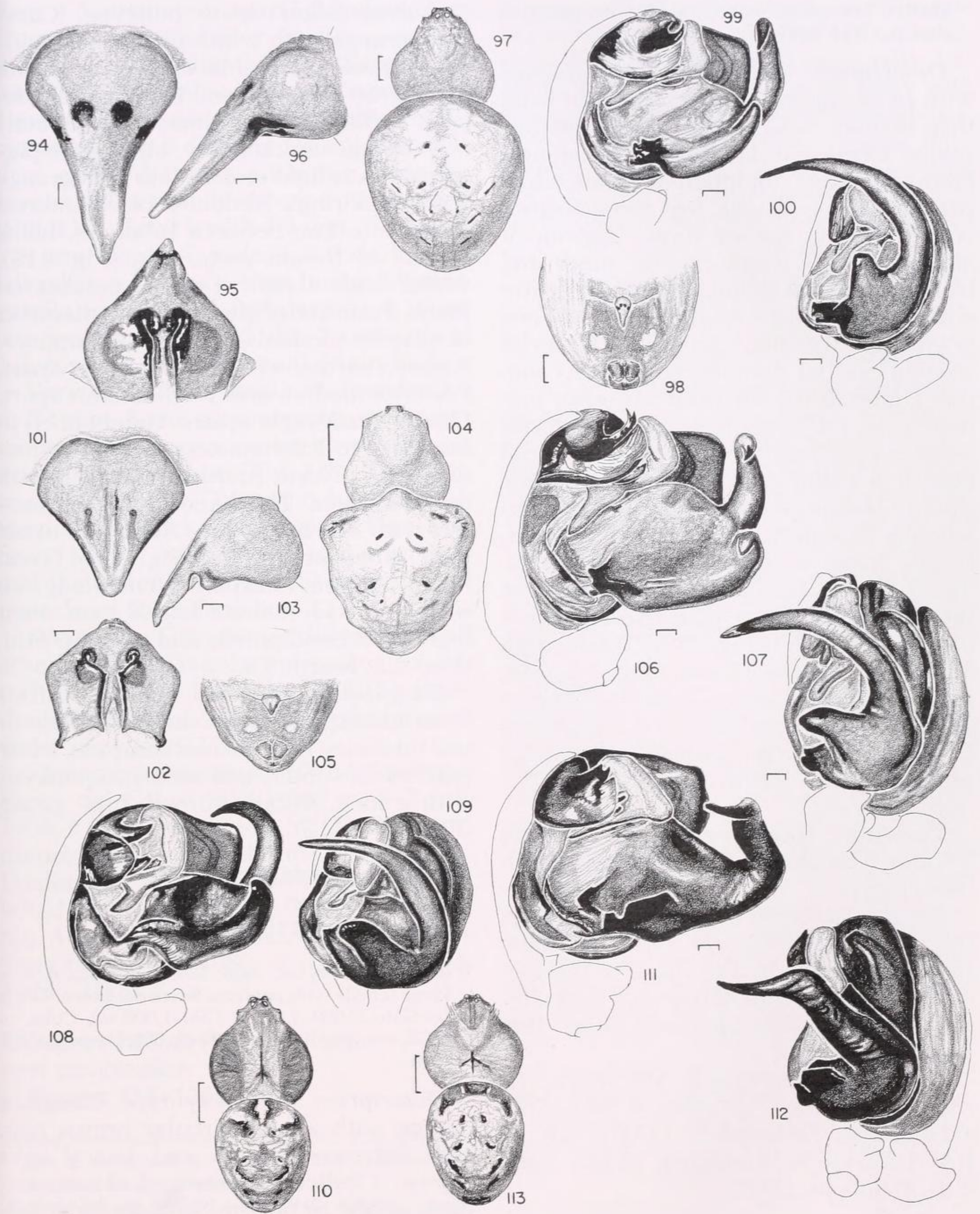
Diagnosis. *Ocrepeira arturi* differs from most *Ocrepeira* species by having an anterior median hump and humps all around the abdomen (Fig. 104). The epigynum (Figs. 101–103) can be confused with that of *O. serrallesi* (Figs. 78–86). The male palpus has differently shaped median and terminal apophyses (Figs. 106, 107) from those of *O. serrallesi* (Fig. 87).

Ocrepeira pedregal new species Figures 108–110; Map 4

Holotype. Male holotype from Pedregal, Distrito Federal, Mexico, 8 Aug. 1947 (H. Wagner), in

Figures 94–100. *Ocrepeira camaca* n. sp. 94–97, female. 94–96, epigynum. 94, ventral. 95, posterior. 96, lateral. 97, dorsal. 98, abdomen, ventral. 99, 100, left male palpus.

Figures 101–107. *O. arturi* n. sp. 101–105, female. 101–103, epigynum. 101, ventral. 102, posterior. 103, lateral. 104, dorsal. 105, abdomen, ventral. 106, 107, male palpus.



Figures 108-110. *O. pedregal* n. sp., male. 108, 109, palpus. 110, dorsal.

Figures 111-113. *O. yucatan* n. sp., male. 111, 112, palpus. 113, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

AMNH. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace with an orange band, band wider in front than behind, carapace brown in thoracic region. Chelicerae, labium, endites orange. Sternum orange, underlain by some white pigment. Coxae orange, legs orange-brown with indistinct darker rings. Dorsum of abdomen with white cardiac mark and black outline of a folium (Fig. 110). Venter with a white transverse rectangle between genital groove and spinnerets. Posterior median eyes 1.1 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.7 diameters apart. Posterior median eyes 1.8 diameters apart. Lateral eyes their radius apart. Ocular quadrangle square. Height of clypeus equal to 1.3 diameters of anterior median eyes. Third, fourth coxae each with one macroseta. Third, fourth trochanters each with one macroseta. Abdomen with two anteriorly directed tubercles (Fig. 110). Total length 5.2 mm. Carapace 2.7 mm long, 2.3 wide, 1.2 wide behind lateral eyes. First femur 3.0 mm, patella and tibia 3.4, metatarsus 1.9, tarsus 0.7. Second patella and tibia 2.7 mm, third 1.8, fourth 2.5. Abdomen 3.1 mm long.

Variation. Total length of males 5.2 to 5.6 mm. The illustrations were made from the holotype.

Diagnosis. *Ocrepeira pedregal* differs from *O. yucatan*, *O. rufa*, and other males found in Mexico by the shape of the median and terminal apophyses and the knife-shaped paramedian apophysis (Figs. 108, 109).

Specimens Examined. MEXICO *Michoacan*: 16 km S Uruapan, 6 July 1985, ♂ (Woolley, Zolnerwicz, DAD). NICARAGUA 5 km N Matagalpa, 15 July 1989, ♂ (R. Reinbold, JMM).

***Ocrepeira yucatan* new species**
Figures 111–113; Map 4

Holotype. Male holotype from Piste, Yucatan, Mexico, 4–8 June 1959 (C., P. Vaurie), in AMNH. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace orange with white pigment in middle. Clypeus black, sides of thoracic region with some white down-like setae. Chelicerae, endites, labium dusky orange. Sternum orange underlain by some white pigment. Coxae light orange; legs light orange with black rings. Abdomen black anterior to a white line between tubercles, black outline of folium posteriorly (Fig. 113); venter with a pair of white patches on black. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.8 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1.2 diameters of anterior median eyes. Third, fourth coxae each with one macroseta. Third and fourth trochanters with one macroseta. Abdomen ovoid with tubercles minute (Fig. 113). Total length 5.0 mm. Carapace 3.3 mm long, 3.0 wide, 1.3 wide behind lateral eyes. First legs lost. Second patella and tibia 3.6 mm, third 2.2, fourth 3.1.

Diagnosis. *Ocrepeira yucatan* differs from other species by having small abdominal tubercles, light colored carapace, white patches on venter, and median apophysis with a long, distally turned “up” prong (Figs. 111, 112).

***Ocrepeira incerta* (Bryant),**
new combination

Figures 114–118; Map 4

Wixia incerta Bryant, 1936: 328, pl. 23, figs. 6, 8, ♀. Three female syntypes from Sierra del Cobre, Loma del Gato, 2,600–3,325 ft [790–1,000 m], Cuba, in MCZ, examined. Roewer, 1942: 882. Bonnet, 1959: 4829.

Description. Female syntype. Carapace orange with almost circular brown cap; area between median and lateral eyes brown. Chelicerae brown. Labium, endites yellow to brown. Sternum light yellowish with dark margin. Coxae light yellowish; legs yellowish with brown rings. Dorsum of abdomen white and black with posterior transverse bars (Fig. 117); venter dusky with a pair of large white patches anterior to spinnerets. Anterior median

eyes 1.5 diameters apart, 2.5 diameters from laterals. Posterior median eyes 1.5 diameters apart, slightly more than 3 from laterals. Posterior median eyes on swelling. Ocular quadrangle square. Height of clypeus equal to 0.8 diameter of anterior median eyes. Abdomen with two large tubercles and a minute anterior median one (Fig. 117). Total length 4.3 mm. Carapace 1.8 mm long, 1.7 wide, 1.2 wide behind lateral eyes 1.2 wide. First femur 2.0 mm, patella and tibia 2.3, metatarsus 1.4, tarsus 0.6. Second patella and tibia 2.1 mm, third 1.2, fourth 1.7. Abdomen 3.1 mm high.

Variation. Total length of females 3.8 to 5.4 mm. Some specimens have a longer scape of the epigynum or have a longer abdomen than others (Fig. 118). The specimens from Pico Turquino have a dark sternum and lack dark rings on legs. Figures 114–117 were made from a syntype and the abdomen (Fig. 118) from a specimen from Pico Turquino.

Diagnosis. This species differs from all others by the triangular epigynum (in ventral view, Figs. 114, 115) and the flask-shaped outline of the median plate in posterior view (Fig. 115).

Specimens Examined. CUBA *Santiago*: Sierra del Cobre, 900–1,200 m, 3–7 July 1936, ♀ (P. J. Darlington, MCZ); Pico Turquino, 1,800 m, 16–21 June 1936, ♀ (P. J. Darlington, MCZ); S side Pico Turquino, 900–1,500 m, June 1936, ♀ (P. J. Darlington, AMNH); La Majagua, El Cardero, Pico Turquino, Mar. 1980, ♀ (G. Alayón, A. Valdés, IESC).

Ocrepeira hirsuta (Mello-Leitão),
new combination

Figures 119–125; Map 5

Epeira venustula:—Keyserling, 1892: 128, pl. 6, ♀, ♂.
Not *E. venustula* Keyserling, 1880, misidentification (see *O. venustula* below).

Eustala hirsuta Mello-Leitão, 1942: 400, figs. 16–18, ♂. Male holotype from Tirol, Chaco Prov., Argentina, in MLP, examined. Brignoli, 1983: 269.

Description. Female from Chaco, Paraguay. Carapace yellowish, cephalic region orange with white setae, sides of cephalic region and area between eyes dark

brown; a dark brown patch on each side behind cephalic region (Fig. 122). Chelicerae dusky brown, orange proximally. Labium, endites brown. Sternum dusky with five orange patches, yellow behind labium. Coxae yellow; legs yellow, ringed dark brown. Anterior of dorsum of abdomen dark to a line between tubercles; posterior with a lyre-shaped mark (Fig. 122); venter gray with a pair of white spots (Fig. 123). Posterior median eyes 0.9 diameter of anterior medians, laterals 0.8 diameter. Anterior median eyes 1.1 diameters apart, 2.5 diameters from laterals. Posterior median eyes 1.2 diameters apart, almost 4 diameters from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with distinct humps (Fig. 122). Total length 6.4 mm. Carapace 3.4 mm long, 2.5 wide, 1.6 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 3.2, metatarsus 2.0, tarsus 0.9. Second patella and tibia 3.1 mm, third 1.9, fourth 2.9.

Male holotype of *Eustala hirsuta*. Color as in female but dorsum of abdomen with brown chevrons. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes slightly more than their diameter apart. Third and fourth coxae with one macroseta. Fourth trochanter with one macroseta. Abdomen oval. Total length 5.8 mm. Carapace 3.0 mm long, 2.6 wide. First femur 2.8 mm, patella and tibia 3.6, metatarsus 2.0, tarsus 0.8. Second patella and tibia 2.8 mm, third 2.1, fourth 3.0.

Note. Males and females were repeatedly collected together.

Variation. Total length of females 6.4 to 8.2 mm, of males 4.5 to 5.8. A male from Rio Grande do Sul had the ocular quadrangle narrower behind than in front, the height of the clypeus equal to the diameter of the anterior median eyes, the carapace 2.4 mm wide, 1.3 wide behind lateral eyes. Some females have the sternum colored as in *Parawixia* (Levi, 1992, fig. 6) with pairs of light colored patches.

All illustrations were made from specimens from Chaco, Paraguay.

Diagnosis. The epigynum, in ventral view, unlike that of other species, has a small lobe on each side (Fig. 119), and has a distinct constriction of the median plate in posterior view (Fig. 120). The palpus differs by the shape of the median apophysis (Figs. 124, 125).

Natural History. One female from Curitiba was observed making an orb in the grass at sunset.

Specimens Examined. BRAZIL *Paraná:* Curitiba, 3 Feb. 1988, ♀ (R. L. C. Baptista, RLCB); Rôlandia, 1948, ♀ (A. Maller, AMNH). *Rio Grande do Sul:* Guaíba, 8 Feb. 1980, ♀ (H. A. Gastal, MCN 9224); Parque Estadual de Nonoai, Nonoai, 13 Jan. 1985, ♀ (A. A. Lise, MCN 12910); São Leopoldo, 19 June 1965, 6♀, ♂ (C. Valle, MZSP 4887); Serro Claro, São Pedro do Sul, 10 Jan. 1985, 16♀, 8♂, imm. (A. A. Lise, MCN 13001). PARAGUAY *Alto Paraná:* Taguararapa, 7♀, ♂ (AMNH), 1–6 Sept. 1982, 7♀, ♂ (J. A. Kochalka, IRNP); SE Naryal [?], 18–22 Aug. 1988, ♂ (L. Peña, AMNH). *Chaco:* Parque Nacional Defensores, Misión Cué, Tribu Nueva, 1–3 Sept. 1982, 7♀, 2♂ (J. A. Kochalka, IRNP). *Itapúa:* Autidia Matiauda, 20 km NE Puerto Capitán Meza, Mar. 1984, ♂ (L. Fogarty, MCZ). ARGENTINA *Misiones:* Eldorado, Sept.–Nov. 1964, 2♀ (A. Kovacs, AMNH); Puerto Aguirre, 1943, ♀ (J. M. Siana, MACN). *Salta:* Zuviria, Dec. 1907, ♀, ♂ (E. Reimoser, MCZ). *Santa Fé:* San Javier, Feb. 1964, ♂ (M. E. Galiano, MEG).

Ocrepeira hondura new species

Figures 126–130; Map 4

Holotype. Female holotype from Bajo Hondura [10°09'N, 83°55'W], 1,200 m, San José Prov., Costa Rica, Nov. 1987 (W. Eberhard), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, sides with a wide brown band broken behind posterior median eyes. Chelicerae, labium, endites brown. Sternum white with a brown rim. Anterior two pairs of coxae brown, posterior two yellowish; legs yellowish with dark rings and patches. Dorsum of abdomen with dark marks on anterior side of each tubercle, posterior with transverse dark bars (Fig. 129); venter black with a pair of white spots (Fig. 130). Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 2 diameters apart. Ocular quadrangle almost square, very slightly wider behind. Height of clypeus equal to 1 diameter of anterior median eye. Abdomen with a pair of tubercles (Fig. 129). Total length 8.2 mm. Carapace 3.4 mm long, 2.7 wide, 2.0 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.8, metatarsus 2.0, tarsus 0.9. Second patella and tibia 3.6 mm, third 2.2, fourth 3.4. Abdomen 5.7 mm long.

Diagnosis. The triangular epigynum differs from all others by the small pocket at the tip (Fig. 126) and the shape of the posterior median plate (Fig. 127).

Ocrepeira klossi new species

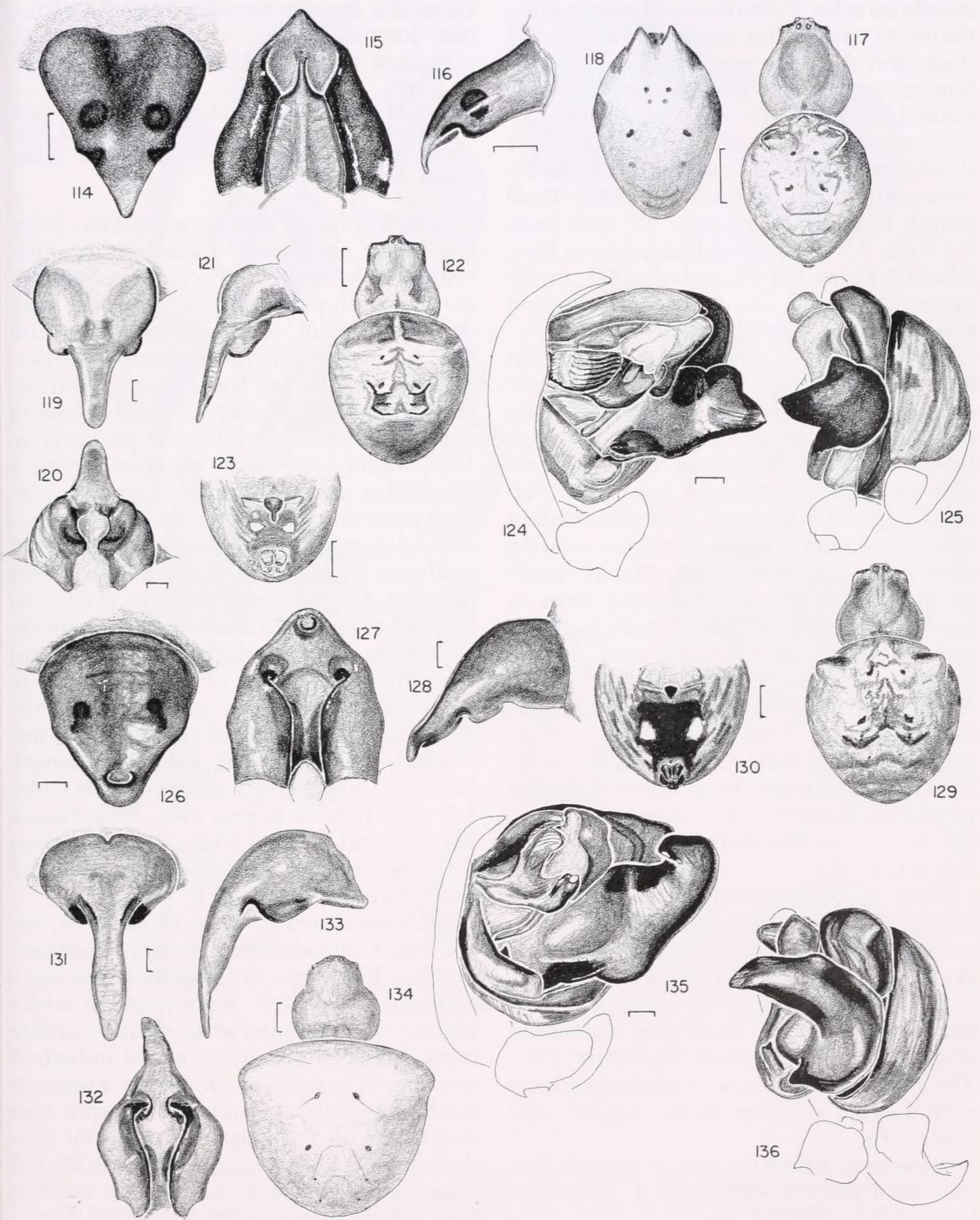
Figures 131–136; Map 5

Holotype. Female holotype from Serro do Caraça, Minas Gerais State, 20°08'S, 43°30'W, Brazil, 12–23 Nov. 1961 (U. Martins, K. Lenko, R. Kloss), in MZSP no. 6710. The species is named after one of the collectors.

Description. Female holotype. Carapace orange. Chelicerae, labium, endites orange. Sternum orange. Coxae orange; legs orange. Dorsum of abdomen white (Fig. 134); venter without pigment except for two white pigment patches and white

Figures 114–118. *Ocrepeira incerta* (Bryant), female. 114–116, epigynum. 114, ventral. 115, posterior. 116, lateral. 117, dorsal. 118, abdomen, dorsal.

Figures 119–125. *O. hirsuta* (Mello-Leitão). 119–123, female. 119–121, epigynum. 119, ventral. 120, posterior. 121, lateral. 122, dorsal. 123, abdomen, ventral. 124, 125, male left palpus.



Figures 126–130. *O. hondura* n. sp., female. 126–128, epigynum. 126, ventral. 127, posterior. 128, lateral. 129, dorsal. 130, abdomen, ventral.

Figures 131–136. *O. klossi* n. sp. 131–134, female. 131–133, epigynum. 131, ventral. 132, posterior. 133, lateral. 134, dorsal. 135, 136, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

streaks on sides. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle almost square. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with lateral tubercles (Fig. 134). Total length 10.0 mm. Carapace 3.7 mm long, 3.1 wide, 1.8 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 4.0, metatarsus 2.7, tarsus 1.0. Second patella and tibia 3.9 mm, third 2.5, fourth 3.6.

Male paratype. Color as in female but legs with indistinct darker rings and abdomen with anterior black with a white cardiac mark, posterior with a black outline around a dark folium. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.8 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Third and fourth trochanters each with one macroseta. Total length 6.0 mm. Carapace 3.3 mm long, 2.7 wide, 1.2 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 3.9, metatarsus 2.3, tarsus 0.9. Second patella and tibia 3.2 mm, third 2.0, fourth 3.1.

Note. It is uncertain if male and female belong together; they were matched on account of similar size of the carapace and proximate collecting localities.

Diagnosis. The epigynum of this species has a scape that is constricted anteriorly (Fig. 131) and is relatively thick (Fig. 133). The male has a unique median apophysis with a slight swelling on its "upper" side (Fig. 136).

Paratype. BRAZIL *Minas Gerais*: Lagoa Santa, 26 Nov. 1960, ♂ (C. Araújo, Martina, MZSP 7960).

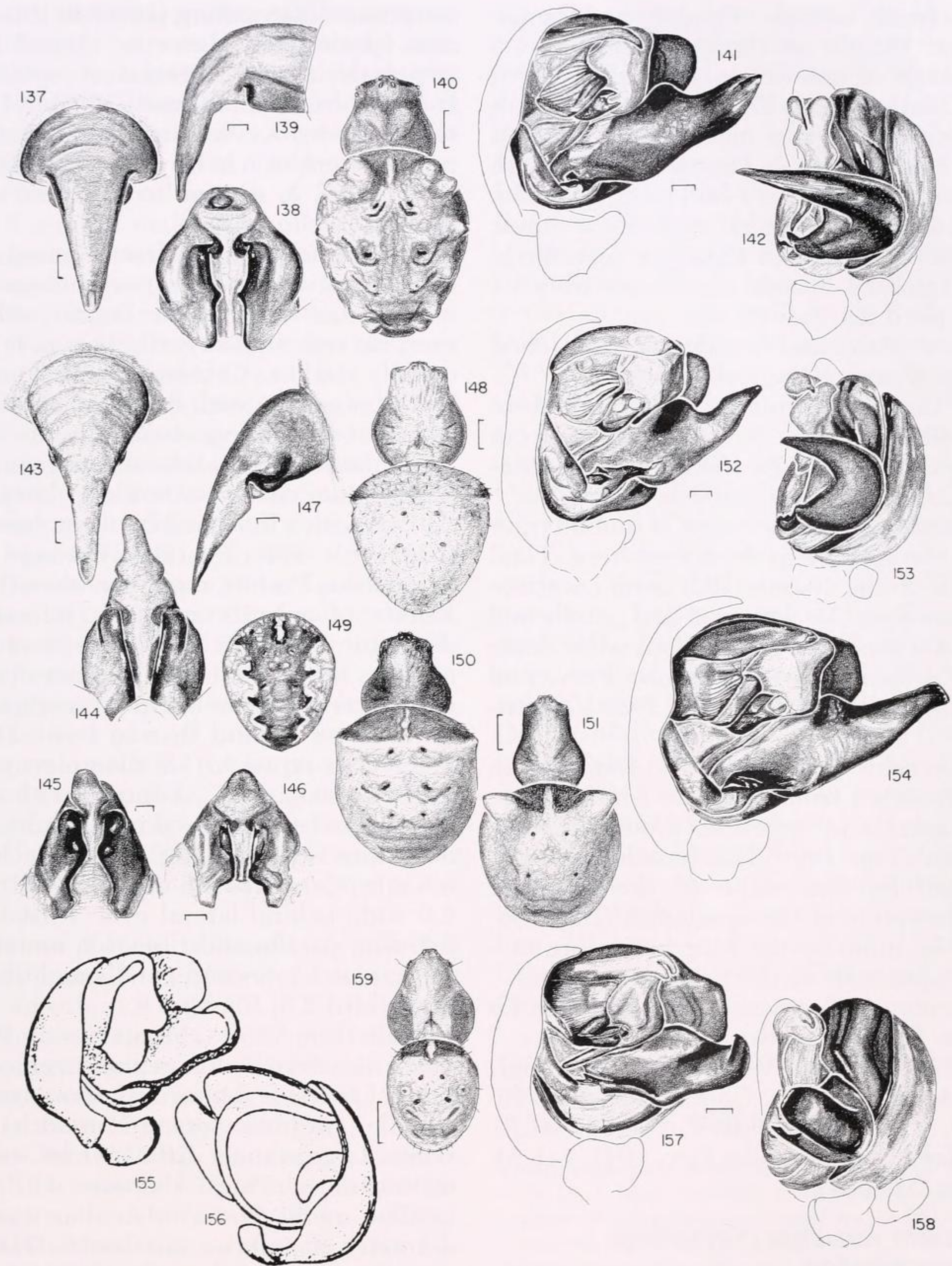
Ocrepeira mastophoroides (Mello-Leitão), new combination

Figures 137–142; Map 5

Parawixia mastophoroides Mello-Leitão, 1942: 402, figs. 23, 24, ♀. Female holotype from Quimilí, Santiago del Estero Prov., Argentina, in MLP, examined. Brignoli, 1983: 279.

Description. Female specimen from Córdoba, Argentina. Carapace orange-brown with black band across cephalic region, and clypeus black. Chelicerae dark orange. Labium, endites orange. Sternum light orange with dusky around border. Coxae light orange; legs orange, contrastingly ringed with gray to black. Dorsum of abdomen black, white, and brown (Fig. 140); venter, with white pigment between epigynum and spinnerets. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes 1.1 diameters apart, 2.5 diameters from laterals. Posterior median eyes 2 diameters apart, 3.5 diameters from laterals. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with five pairs of tubercles, the anterior lateral double (Fig. 140). Total length 6.6 mm. Carapace 3.2 mm long, 2.3 wide, 1.6 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.9. Second patella and tibia 3.2 mm, third 2.0, fourth 3.2.

Male specimen from La Rioja Prov., Argentina. Color darker and more contrasting than in female. Sides of thorax orange, cephalic area black. Sternum with white pigment, abdomen with white cardiac mark, and venter with a pair of indistinct white spots in front of spinnerets. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.6 diameter apart, less than 2 diameters from laterals. Posterior median eyes 0.8 diameter apart, about 3.5 diam-



Figures 143–154. *O. venustula* (Keyserling). 143–151, females. 143–147, epigynum. 143, ventral. 144–146, posterior. 147, lateral. 148, 150, 151, dorsal. 149, abdomen, dorsal. 152–154, palpus. 143, 144, 147, 148, 152, 153, (Minas Gerais State, Brazil). 150, (Rio Grande do Sul State, Brazil). 146, 151, (Santa Catarina State, Brazil). 145, 149, 154 (Cautin Prov., Chile).

Figures 155, 156. *O. verecunda* (Keyserling), male palpus (from Keyserling, 1892).

Figures 157–159. *O. redondo* n. sp., male. 157, 158, palpus. 159, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

eters from laterals. Ocular quadrangle square. Height of clypeus equals to 1.5 diameters of anterior median eyes. Third and fourth coxae with a macroseta. Fourth trochanter with one macroseta. Abdomen with tubercles as in female. Total length 5.6 mm. Carapace 2.9 mm long, 2.4 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.6, metatarsus 2.1, tarsus 0.9. Second patella and tibia 3.1 mm, third 2.1, fourth 3.0.

Note. Males and females were matched by the shape of their abdomen.

In the Paris museum is an immature individual marked "*Ar. bergi* Simon" from Uruguay (MNHN No. 5490), a nomen nudum, a name never published.

Variation. The holotype is much larger than the specimens described here. Total length of the female 10.0 mm, carapace 4.0 mm long, 3.0 wide and first patella and tibia 4.0 mm. The illustrations were made from a female from Córdoba Prov. and from a male from La Rioja Prov., Argentina.

Diagnosis. Both males and females can be separated from all other South American species by tubercles around the abdomen (Fig. 140). The female is distinguished by the shape of the posterior median plate of the epigynum (Fig. 138) and the male by the long projecting median apophysis of the palpus (Fig. 142).

Specimens Examined. ARGENTINA *La Rioja*: Pozo de Piedra, 6 km E Chepes, 7 Jan. 1980, 2♂ (R. E. Woodruff, L. A. Stange, FSCA). *Entre Ríos*: Concepción del Uruguay, 4 Jan. 1941, ♀ (R. F. Prosen, MLP). *Córdoba*: Calamuchita, Dec. 1941, ♀ (J. M. Viana, MACN).

Ocrepeira venustula (Keyserling),
new combination

Figures 29–33, 143–154; Map 5

Epeira venustula Keyserling, 1880: 308, pl. 4, fig. 11, ♀. Female holotype from Nova Friburgo [Rio de Janeiro State], Brazil, in the L. Koch collection, lost.

Aranea venustula:—Roewer, 1942: 856.

Araneus venustulus:—Bonnet, 1955: 628.

Note. The original specimen of *E. venustula* is lost. The measurements and de-

scription of Keyserling (1880) fit this common species best. However, three female, two male, and two immature specimens from Espírito Santo, Brazil, in BMNH, determined by Keyserling, and the subsequent description in Keyserling, 1892: 128, pl. 6, ♀ [?], ♂, appear to be those of *O. hirsuta* (Mello-Leitão).

Description. Female from Gonzaga, Minas Gerais, Brazil. Carapace orange with white setae on cephalic region, sides of thoracic region dusky. Chelicerae orange, distally darker. Labium, endites orange. Sternum orange with dusky marks. Coxae lighter orange; legs orange with dusky rings. Dorsum of abdomen orange with black setae, darker anterior to lateral tubercles with a light line between tubercles (Fig. 148); venter light dusky orange without marks. Posterior median eyes 0.6 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.2 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen with a pair of anterior tubercles and many short setae, densest on tubercles (Fig. 148). Total length 8.5 mm. Carapace 3.8 mm long, 3.1 wide, 2.0 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 4.2, metatarsus 2.8, tarsus 1.1. Second patella and tibia 3.9 mm, third 2.5, fourth 3.8.

Male from Vicososa, Minas Gerais, Brazil. Color as in female but cephalic region and sides of thoracic region darker orange than middle. Sternum orange underlain by white. Legs orange, distal articles with indistinct darker rings. Abdomen with white cardiac mark. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 1.1 diameters apart, 1.7 diameters from laterals. Posterior median eyes 1.5 diameters apart, 3.5 diameters from laterals. Ocular quadrangle slightly longer than wide and slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third and fourth coxae with one macroseta. Third and fourth trochan-

ters with one macroseta. Abdomen oval. Total length 5.2 mm. Carapace 3.1 mm long, 2.5 wide, 1.4 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.6, metatarsus 2.0, tarsus 0.8. Second patella and tibia 3.0 mm, third 1.9, fourth 2.7.

Variation. Total length of females 6.9 to 10.8 mm, of males 5.2 to 7.2. A second male had a macroseta only on the third and fourth coxae and left fourth trochanter. Most females have a similar appearance (Fig. 148); however, a female from Santa Catarina State, Brazil, has the tubercles of the abdomen extended (Fig. 151). Some others have pointed tubercles on the abdomen and a dark folium (Figs. 146, 149 from Rio Grande do Sul). Perhaps they belong to different species. Figures 143, 144, 147, 148, 152, 153 were made from specimens from Minas Gerais State, Figures 146, 149 from Rio Grande do Sul, Figures 29–33, 145, 150, 154 from Araucaria Region, Chile.

Diagnosis. Unlike several related species the first pair of muscle scars of the abdomen are outside the anterior dark area (Figs. 148, 150, 151). The tip of the scape of the female epigynum has a slight depression (Fig. 143). There is considerable variation in the length of the scape of the epigynum.

Natural History. A female was collected in Itabapoana, Rio de Janeiro State, at night from an orb in a field (R. L. C. Baptista); in Chile specimens were collected by sweeping at dusk in a Valdivian rain forest.

Specimens Examined. BRAZIL. *Minas Gerais:* Belo Horizonte (AMNH); Carmo de Rio Clara (MNRJ); Gonzaga de Campos (MZSP); Lavras (MCZ); Minha Serinha Diamantina (AMNH); Viçosa (CUC, AMNH). *Mato Grosso do Sul:* Três Lagoas, (MZSP). *Rio de Janeiro:* Itatiaia (AMNH); Bom Jesus do Itabapoana (RLCB); Pinheiro (MNRJ). *São Paulo:* Castilho (MZSP); Emas (MZSP); Jaboticabal (MCZ, MCN); São Paulo (MZSP). *Santa Catarina:* Pinhal (AMNH). *Rio Grande do Sul:* Paso Fundo (MCN); Canela (MCN); Garruches, São Borja (MCN); Cerro Claro, São Pedro do Sul (MCN); Cidreira (MCN);

Chacara Aver, Bom Jesus (MCN); Machadinho (MCN) Parque Estadual de Nonoai (MCN); Sao Leopoldo (MZSP). URUGUAY *Durazno:* Ave. de Cordoba (MHNM). Paso de los Libres[?] (CAS). ARGENTINA *Misiones:* Eldorado (AMNH); Las Flores [?] (MACN). *Chaco:* Presidente Roque Saenz Peña (MACN). *Salta:* NE Salta (MCZ). *La Pampa:* Santa Rosa, (MACN); Realicó (MACN). *Santa Fé:* Arrufó (MCZ). *Entre Ríos:* San Felicia [? Feliciano] (MACN). *Buenos Aires:* Buenos Aires (MACN); S Las Barrancas [La Barranca] (MACN); Punta Lara (MACN). *La Rioja:* La Rioja (MACN). *Neuquén:* Piedra del Aguila (ZMK); San Martín de los Andes, Quilquihué (ZMK). *Río Negro:* (MNRJ); El Bolsón (AMNH). CHILE *Coquimbo:* 32 km E La Serena (CAS); Combarbalá, Manquehua (MCZ); Hda. Illapel (IRSNB). *Valparaíso:* Papudo (MNRJ); Quintero (AMNH) Quillota (AMNH). *Metropolitana:* Aculeo, El Patagual (AMNH); El Canelo, Maipo Canyon (AMNH); Santiago (MCZ); Malleco (AMNH). *Maule:* Río Terio (AMNH). *Bío-Bío:* Angol (CAS); Fundo Pinares (MZSP). *Araucaria:* region de Araucaria (AMNH); 30 km NE Villarica (MCZ). *Los Lagos:* Llau-llau (USNM); Valley forest, 18 km W Purránque (CAS); Osorno (AMNH); Parque Nacional Puyehue, 4.1 km E Anticura (AMNH); Pucatrihue, coast (AMNH); Chiloé, 10 km N Castro (AMNH).

Ocrepeira verecunda (Keyserling),
new combination

Figures 155, 156; Map 5

Epeira verecunda Keyserling, 1865: 824, pl. 19, figs. 14–16, ♂. Male holotype from New Granada [old name of Colombia], both palpi lost in BMNH, examined; 1892: 127, pl. 6, fig. 94, ♂.

Aranea verecunda:—Roewer, 1942: 856.

Araneus verecundus:—Bonnet, 1955: 628.

Note. The male holotype lost both palpi. No other specimen was found that matches Keyserling's illustrations (Figs. 155, 156).

Description. Male holotype. Carapace orange. Sternum, legs light orange. Abdomen orange-white with a white cardiac mark; venter with a white pigment square

between genital groove and spinnerets. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.5 diameters apart. Posterior median eyes 1.5 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1.3 diameters of anterior median eyes. Third, fourth coxae each with one macroseta, both on small tubercles. Fourth trochanter with one macroseta. Abdomen with a pair of distinct dorsal, pointed tubercles. Total length 4.8 mm. Carapace 2.5 mm long, 2.1 wide, 1.2 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.9, metatarsus 1.6, tarsus 0.8. Second patella and tibia 2.5 mm, third 1.5, fourth 2.1.

Ocrepeira redondo new species
Figures 157–159; Map 5

Holotype. Male holotype from Monteredondo, 1,200 m, Depto. Cundinamarca, Colombia, 25 Feb. 1975 (P. A. Schneble), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace orange, sides of thoracic region dark dusky. Sternum, coxae orange. Legs dark orange, distal articles of third and fourth with indistinct darker rings. Dorsum of abdomen dusky, with white cardiac mark (Fig. 159); venter dusky without marks. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 1.8 diameters from laterals. Posterior median eyes 1.2 diameters apart, slightly more than 2 diameters from laterals. Ocular quadrangle square. Height of clypeus equal to

1.1 diameters of anterior median eyes. Third and fourth coxae with one macroseta. Fourth trochanter with one macroseta. Total length 4.5 mm. Carapace 2.7 mm long, 2.3 wide, 1.2 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.2, metatarsus, tarsus lost. Second patella and tibia 2.7 mm, third 1.7, fourth 2.3.

Variation. Total length of males 4.5 to 5.0 mm. The illustrations were made from the holotype.

Diagnosis. The soft terminal apophysis hangs over the conductor. The shape of the median apophysis is diagnostic (Figs. 157, 158).

Natural History. The specimen from Sierra Nevada de Santa Marta was beaten from dry banana leaves on a plantation.

Specimens Examined. COLOMBIA *Magdalena*: San Sebastian de Rabago, Sierra Nevada de Santa Marta, 2,000 m, 11–14 May 1968, ♂ (B. Malkin, AMNH).

Ocrepeira lurida (Mello-Leitão),
new combination
Figures 160–166; Map 5

Wixia lurida Mello-Leitão, 1943: 106, fig. 6, ♀. Female holotype from Alta Gracia, Córdoba Prov., Argentina, in MLP, examined. Brignoli, 1983: 281.

Description. Female from Calamuchita, Córdoba Prov., Argentina. Carapace orange, eye area and clypeus dusky. Chelicerae, labium, endites orange. Sternum orange. Coxae yellowish; legs orange with black rings. Dorsum of abdomen white, dusky and with brownish black transverse bars (Fig. 163); venter dusky with a pair

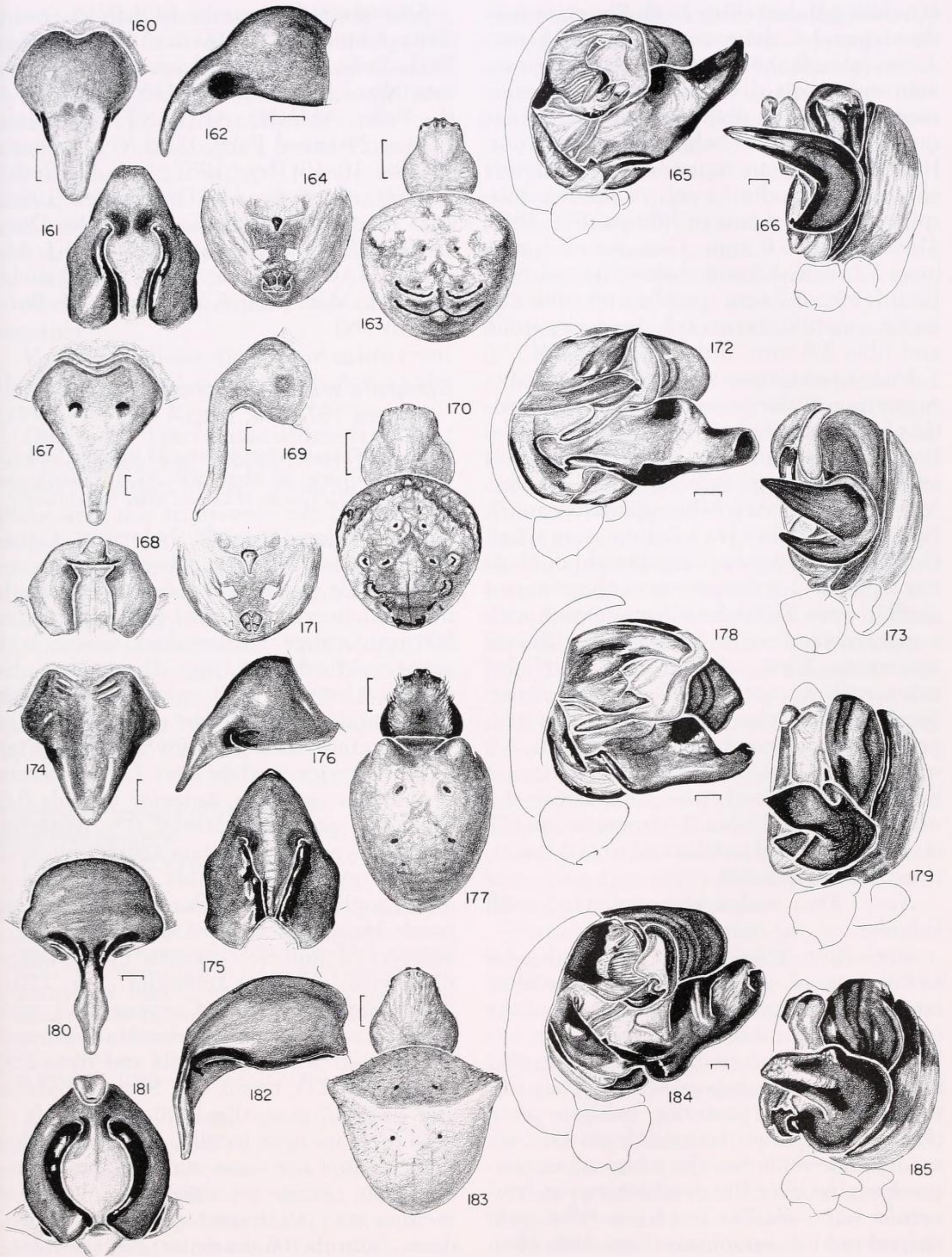
Figures 160–166. *Ocrepeira lurida* (Mello-Leitão). 160–164, female. 160–162, epigynum. 160, ventral. 161, posterior. 162, lateral. 163, dorsal. 164, abdomen, ventral. 165, 166, left male palpus.

Figures 167–173. *O. willisi* n. sp. 167–171, female. 167–169, epigynum. 167, ventral. 168, posterior. 169, lateral. 170, dorsal. 171, abdomen, ventral. 172, 173, male palpus.

Figures 174–179. *O. tumida* (Keyserling). 174–177, female. 174–176, epigynum. 174, ventral. 175, posterior. 176, lateral. 177, dorsal. 178, 179, male palpus.

Figures 180–185. *O. malleri* n. sp. 180–183, female. 180–182, epigynum. 180, ventral. 181, posterior. 182, lateral. 183, dorsal. 184, 185, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.



of white patches (Fig. 164). Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.2 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen subspherical with a pair of humps (Fig. 163). Total length 6.0 mm. Carapace 2.5 mm long, 2.2 wide, 1.2 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 2.9, metatarsus 2.6, tarsus 0.7. Second patella and tibia 2.8 mm, third 1.8, fourth 2.7.

Male from Calamuchita, Córdoba Prov., Argentina. Color as in female except venter of abdomen lighter than that of female. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1.2 diameters of the anterior median eyes. Third, fourth coxae each with a macroseta. Fourth trochanter with one macroseta. First, second, and fourth femurs with a ventral row of macrosetae. Second tibia thicker than first, swollen with prolateral macrosetae. Total length 5.0 mm. Carapace 2.7 mm long, 2.2 wide, 1.4 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.5, metatarsus 1.9, tarsus 0.8. Second patella and tibia 3.0 mm, third 1.8, fourth 2.8.

Note. Two males were collected with females.

Variation. Total length of females 4.9 to 6.9 mm, of males 5.0 to 5.1. The illustrations were made from specimens of the Córdoba Prov., Argentina.

Diagnosis. The two dark spots on the flat scape of the epigynum (Fig. 160) and the vase-shaped posterior median plate (Fig. 161) separate females from *O. venustula*. The male has the terminal apophysis hanging over the conductor as in *venustula*, but is smaller and has a differently shaped median apophysis (Figs. 165, 166).

Natural History. A female was collected in Yungas forest in Argentina.

Specimens Examined. BOLIVIA *Santa Cruz:* Comarapa, 1,800 m, 14 Dec. 1984, 2♀ (L. Peña, AMNH). *Chuquisaca:* E Monteagudo, 1,600 m, 21–24 Dec. 1984, 4♀, ♂ (L. Peña, AMNH). ARGENTINA *Salta:* El Rey National Park, Pozo Verde Trail, 950 m, 10–13 Dec. 1987, ♀ (S., J. Peck, AMNH). *Córdoba:* Alta Gracia, Feb. 1934, ♀ (C. Bruch, MACN); Calamuchita, Dec. 1940, ♀, Dec. 1941, 6♀, ♂, 2 imm. (J. M. Viana, MACN). *Buenos Aires:* Sierra de la Ventana, Mar. 1939, ♀, 2♂, 3 imm. (H. Barrio, MACN).

Ocrepeira willisi new species Figures 167–173; Map 4

Holotype. Female holotype from El Volcán, Chiriquí Prov., Panama, 20 Mar. 1936 (W. J. Gertsch), in AMNH. The species is named after the collector.

Description. Female holotype. Carapace orange with light setae, cephalic region slightly darker. Clypeus dusky on each side. Chelicerae, labium, endites orange. Sternum orange, borders dark. Coxae, legs orange with darker rings. Dorsum of abdomen white and gray spotted, with dark folium and transverse bars posteriorly (Fig. 170); venter with a pair of white spots (Fig. 171). Posterior median eyes 1.1 diameters of anterior medians, anterior laterals 0.6 diameter, posterior laterals 0.8. Anterior median eyes 1.2 diameters apart. Posterior median eyes 2 diameters apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 1.5 diameters of anterior median eyes. Abdomen with indistinct tubercles (Fig. 170). Total length 5.7 mm. Carapace 2.4 mm long, 2.2 wide, 1.5 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.9, metatarsus 2.0, tarsus 0.8. Second patella and tibia 2.7 mm, third 1.6, fourth 2.5.

Male from type locality. Color as in female, except for some white pigment underneath orange of carapace. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes slightly less than their diameter apart. Posterior median eyes 2 diameters

apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 4.5 mm. Carapace 2.5 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.1, metatarsus 1.9, tarsus 0.9. Second patella and tibia 2.7 mm, third 1.6, fourth 2.3.

Note. Males and females were collected together.

Variation. Illustrations were made from the holotype and a male collected at the type locality.

Diagnosis. The female differs from that of *O. tumida* and others by the relative "deep" position of the posterior median plate and the transverse pit behind the scape (Fig. 168). The male can be separated from the male of *O. tumida* by the shape of the median and terminal apophyses (Figs. 172, 173).

Specimens Examined. PANAMA *Chiriquí*: El Volcán, 25 Feb. 1936, 2♀, ♂, paratypes (W. J. Gertsch, AMNH). *Panamá*: Barro Colorado Isl., Lago Gatún, 12 Feb. 1936, ♀ (W. J. Gertsch, AMNH).

Ocrepeira tumida (Keyserling),
new combination

Figures 174–179; Map 5

Epeira tumida Keyserling, 1865: 808, pl. 18, fig. 18, figs. 6–8, ♀. Female lectotype here designated, and one paralectotype (belonging to another species) from New Granada [old name for Colombia], in BMNH no. 1890.7.1.4675, examined; (not *Acrosoma tumida* Taczanowski, which has been placed in *Araneus* by later authors).

Wixia tumida:—Keyserling, 1892: 48, pl. 2, fig. 39, ♀. Roewer, 1942: 882. Bonnet, 1959: 4830.

Description. Female specimen from Ecuador. Carapace dark brown with long white setae. Chelicerae dark brown. Labium brown. Endites, sternum, coxae orange-brown; legs dark brown. Dorsum of abdomen light with some tiny dark dots, anterior dark (Fig. 177); venter black without marks. Posterior median eyes 1.3

diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes 1.1 diameters apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle wider behind than in front. Posterior median eyes on a swelling. Height of clypeus equal to 1.2 diameters of anterior median eye. Abdomen with a pair of humps facing anteriorly (Fig. 177). Total length 6.8 mm. Carapace 3.1 mm long, 2.4 wide, 1.8 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.8. Second patella and tibia 3.4 mm, third 2.1, fourth 2.9.

Male from Ecuador in poorly preserved condition. Carapace dark orange, sternum underlain by white pigment, legs ringed. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 0.8 diameter apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Abdomen with humps facing anteriorly. Total length 4.5 mm. Carapace 2.7 mm long, 2.1 wide, 1.3 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 3.0, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.7 mm, third 1.8, fourth 2.5.

Note. A male and a female were collected together and both have the forward-facing abdominal humps.

Variation. The lectotype has similar measurements to the specimen described. It differs in coloration: the anterior of the abdomen is brown bordered by white, and the transverse line between the tubercles is broken by a light cardiac mark. Behind the line most of the abdomen is light with a rectangular gray mark. The venter of the abdomen has a white square between epigynum and spinnerets. The humps are farther apart than the illustrated specimen (Fig. 177) and face laterally. The epigynum differs in ventral view by having less of a groove on the scape, and a greater depression anteriorly on the base. In pos-

terior view, the median plate is slightly narrower, the laterals are wider, and the scape has no ridge ventrally; it is flat. Figures 174 to 179 were made from specimens from Ecuador.

Diagnosis. Both the holotype and the specimen described have the first and second patella-tibia of equal length. The epigynum has a longitudinal groove in ventral view (Fig. 174) and the median plate has a keel in posterior view (Fig. 175). The prong of the median apophysis, unlike that of other males, is wide just below its tip and slightly flattened (Figs. 178, 179).

Specimens Examined. ECUADOR *Tungurahua*: Baños, Falls of Agoyan, 1,500 m, 12 May 1939, ♀, 2♂ (W. Clarke-Macintyre, AMNH).

Ocrepeira malleri new species

Figures 180–185; Map 5

Holotype. Female holotype from Pinhal, Santa Catarina State, Brazil, Dec. 1947 (A. Maller), in AMNH. The species is named after the collector.

Description. Female holotype. Carapace orange-brown with white and dark setae. Chelicerae, labium, endites dark orange. Sternum, coxae dark orange; legs orange-brown. Dorsum of abdomen light gray, anterior black between tubercles, dark area includes anterior pair of muscle scars (Fig. 183); venter dusky orange-gray, without marks. Posterior median eyes 1.1 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 2 diameters apart. Laterals almost their diameter apart. Ocular quadrangle very slightly wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 183. Total length 8.8 mm. Carapace 3.9 mm long, 3.3 wide, 1.8 wide behind lateral eyes. First femur 3.5 mm, patella and tibia 4.2, metatarsus 2.7, tarsus 1.1. Second patella and tibia 3.9 mm, third 2.4, fourth 3.5.

Male from Pinhal, Santa Catarina, Brazil. Color as in female but sternum underlain by white; anterior dark area of ab-

domen divided by white cardiac mark and does not include anterior muscle scars. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 1.7 diameters from laterals. Posterior median eyes 1.5 diameters apart, 3 diameters from laterals. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third and fourth coxae with one macroseta. Third and fourth trochanters with one macroseta. Total length 7.0 mm. Carapace 3.7 mm long, 3.1 wide, 1.4 wide behind lateral eyes. First femur 3.8 mm, patella and tibia 4.2, metatarsus 2.6, tarsus 1.0. Second patella and tibia 3.4 mm, third 2.3, fourth 3.2.

Note. Males and females were matched because they were collected at the same locality and both lack ventral markings.

Variation. The scape of the epigynum of two females is broken off leaving a short pointed stump. Total length of females 8.8 to 9.0 mm, of males 5.7 to 9.0. Illustrations were made from the female holotype and a male from the type locality.

Diagnosis. Of all females in which the anterior abdominal dark area includes the first muscle scars, *O. malleri* is distinguished by the distinct shape of the scape, which is widened above its tip (Fig. 180) and the circular posterior median plate (Fig. 181). Males can be separated from others by the short terminal apophysis and the shape of the median apophysis (Figs. 184, 185), which shows a slight hump on its "upper" face (Fig. 185).

Specimens Examined. BRAZIL *Rio de Janeiro*: Petrópolis, Dec. 1945, 850 m, ♀ (H. Sick, AMNH). *Paraná*: Rio Negro, ♂ (MNRJ); Rôlandia, ♂ (A. Maller, AMNH). *Santa Catarina*: Pinhal, Dec. 1947, 2♀, Jan. 1948, 6♀, ♂ paratypes (all A. Maller, AMNH).

Ocrepeira galianoae new species

Figures 186–191; Map 5

Holotype. Female holotype from General Belgrano, Misiones Prov., Argentina, Dec. 1972 (M. E. Ga-

liano), in MACN no. 8915. The species is named after colleague M. E. Galiano, the collector.

Description. Female holotype. Carapace orange-brown with hair-like setae. Chelicerae orange, distally darker. Labium, endites brown. Sternum brown with median light line. Coxae light orange; legs orange-brown, distal articles with indistinct darker ring. Dorsum of abdomen grayish orange-brown, darker anterior to a line between tubercles, dark area including first pair of muscle scars (Fig. 189); venter dusky orange-brown. Posterior median eyes same diameter as anterior medians, laterals 0.5 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.8 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Leg 2 longer than 4. Abdomen as in Figure 189. Total length 8.5 mm. Carapace 3.5 mm long, 2.9 wide, 1.7 wide behind lateral eyes. First femur 3.5 mm, patella and tibia 4.1, metatarsus 2.7, tarsus 0.9. Second patella and tibia 3.9 mm, third 2.5, fourth 3.6.

Male from Vacaria, Rio Grande do Sul, Brazil. Color as in female, except for white pigment spots under sternum and a white cardiac mark dividing dark area of abdomen; dark area not covering anterior muscle scars. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.1 diameters apart, 2 diameters from laterals. Posterior median eyes 1.2 diameters apart, 2.5 diameters from laterals. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third and fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 6.0 mm. Carapace 3.2 mm long, 2.7 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.8, metatarsus 2.1, tarsus 0.8. Second patella and tibia 3.0 mm, third 2.1, fourth 2.8.

Note. Males and females were collected

together. Both sexes have an indistinct pair of white, ventral patches.

Variation. Total length of females 6.3 to 10.2 mm, of males 5.6 to 7.3. The scape of the epigynum is of variable length. Some specimens have a pair of indistinct, ventral white patches. Figures 186–189 were made from the holotype; Figures 190, 191 were made from a male from Vacaria, Rio Grande do Sul.

Diagnosis. The base of the female epigynum, unlike that of *O. fiebrigi* and *O. gima*, is longer than wide in posterior view (Fig. 187); the male differs from others by the long, pointed terminal apophysis and the shape of the median apophysis, which has a tubercle on the "upper" face below the tip of the prong (Figs. 190, 191).

Natural History. A female was collected in an orb web at night, 2 m above the ground on a tree in Paraná State, Brazil.

Specimens Examined. BRAZIL *São Paulo:* Boracéia, 5 Feb. 1960, ♀ (F. Lane, MZSP 3860); Fazenda Intervalles, 15 km E Guapiara, 700 m, Feb. 1990, 2♀ (W. Eberhard, MCZ). *Paraná:* Curitiba, 5 Feb. 1988, ♀ (R. C. L. Baptista, MZSP 13170); Rio Negro, ♂ (MNRJ). *Santa Catarina:* Pinhal, Dec. 1947, 2♀, Jan. 1948, ♀; May 1948, ♀; Dec. 1948, 2♀, ♂ (A. Maller, AMNH). *Rio Grande do Sul:* Parque Estadual de Nonoai, Nonoai, 14 Jan. 1985, 3♀ (A. A. Lise, MCN 12811); Pelotas, 2 Mar. 1964, ♀, ♂ (C. M. Biezanko, MCZ); Machadinho, 8–14 Feb. 1989, ♀ (A. B. Bonaldo, MCN 18191); Sobradinho, 10 Jan. 1985, 5♀, 4♂ (A. A. Lise, MCN 12889); Canela, 26 Dec. 1974, 4♀, ♂, imm. (A. A. Lise, MCN 02445); Santa Maria, 2 Nov. 1985, 6♀, 2♂ (A. D. Brescovit, MCN 14592, 14593); São Francisco de Paula, 4♀ (MNRJ); Vacaria, 14 Jan. 1974, ♂ (A. A. Lise, MCN 00309a). ARGENTINA *Misiones:* Cataratas de Iguazú, 5 Sept. 1963, ♂ paratype (M. E. Galiano, MEG); General Belgrano, Dec. 1972, ♂ paratype (M. E. Galiano, MEG). *Corrientes:* Colón, Dec. 1975, ♂ (M. E. Galiano, MEG). *Buenos Aires:* Boulogne, Oct. 1938, ♀ (R. F. Prosen, MLP); Glew, 1969, ♀ (D. Carpin-

tero, MACN). *Neuquén*: Parque Nacional Lanin, Pucará, Feb. 1963, ♀ (S. Schajovskoy, MACN).

Ocrepeira fiebrigi (Dahl),
new combination

Figures 192–199; Map 5

Aranea fiebrigi Dahl, 1906: 735. Syntypes: two females, eight males, two immatures from Paraguay [no locality], in ZMB, examined. Roewer, 1942: 842. *Araneus fiebrigi*:—Bonnet, 1955: 502.

Description. Female syntype. Carapace orange. Chelicerae, labium, endites orange. Sternum orange. Coxae orange; legs light orange, with indistinct darker rings. Dorsum of abdomen brownish, anterior darker and covering anterior pair of muscle scars as in Figure 189; venter with pair of white patches (Fig. 197). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 197. Total length 9.7 mm. Carapace 4.7 mm long, 4.0 wide, 2.7 wide behind lateral eyes. First femur 4.0 mm, patella and tibia 5.2, metatarsus 3.1, tarsus 1.1. Second patella and tibia 4.9 mm, third 3.2, fourth 4.7.

Male syntype. Color as in female but with white cardiac mark on abdomen. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes 0.6 diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. First coxa with hook and small posterodorsal tubercle. Third and fourth coxae

and trochanters each with one short macroseta. Abdomen oval. Total length 7.7 mm. Carapace 4.2 mm long, 3.3 wide, 1.5 wide behind lateral eyes. First femur 4.5 mm, patella and tibia 5.1, metatarsus 3.1, tarsus 1.1. Second patella and tibia 4.0 mm, third 2.9, fourth 3.9.

Note. Males and females were collected together.

Variation. Total length of females 8.0 to 10.1 mm, of males 6.7 to 8.2. Most females have the scape of the epigynum torn off (Figs. 194–196). The posterior median plate of the epigynum is longer in some individuals than in the one illustrated. Some males lack a macroseta on the third coxa. Description and figures were made from syntypes. However, the description of the ocular square, height of clypeus, and width of carapace behind lateral eyes was made from a female from São Paulo State and a male from Rio Grande do Sul State. Figures 191, 192, 193 were made from a female from Paraguay.

Diagnosis. Only *O. gima* also has a laterally flattened epigynal scape. *Ocrepeira fiebrigi* can be separated from *O. gima* by the trapezoid shape of the posterior median plate (Fig. 195). The male can be separated from others by the sclerotized conductor, the short terminal apophysis, and a keel on the “upper” face of the prong of the median apophysis (Figs. 198, 199).

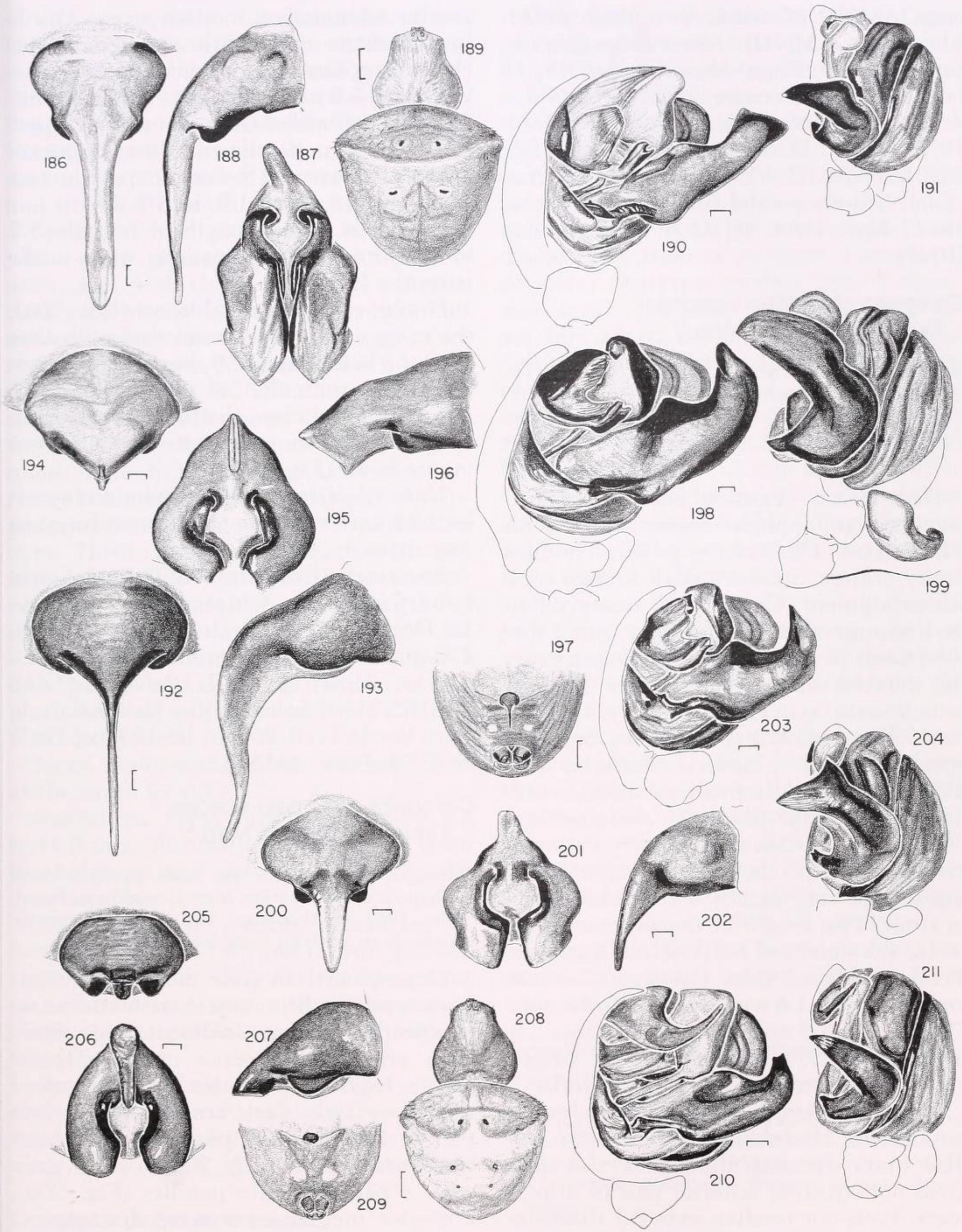
Natural History. Specimens were collected as they hung from a thread at night, another specimen was in an orb web in Chaco Dept., Paraguay.

Specimens Examined. BRAZIL *Pará*: Belém, ♀ (C. F. Baker, MCZ). *Goiás*: Jataí, Fazenda Cachoeirinha, ♀ (Exped. Dept Zool., MZSP 9560). *Mato Grosso*: Chapada dos Guimaraes, Nov. 1963, ♀ (M. Alvar-

Figures 186–191. *Ocrepeira galianoae* n. sp. 186–189, female. 186–188, epigynum. 186, ventral. 187, posterior. 188, lateral. 189, dorsal. 190, 191, left male palpus.

Figures 192–199. *O. fiebrigi* (Dahl). 192–198, female. 192–196, epigynum. 192, 194, ventral. 195, posterior. 193, 196, lateral. 194–196, scape torn off. 197, abdomen, ventral. 198, 199, male palpus.

Figures 200–204. *O. molle* n. sp. 200–202, female epigynum. 200, ventral. 201, posterior. 202, lateral. 203, 204, male palpus.



Figures 205-211. *O. gima* n. sp. 205-209, female. 205-207, epigynum. 205, ventral. 206, posterior. 207, lateral. 208, dorsal. 209, abdomen, ventral. 210, 211, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

enga, AMNH); Cuiabá, Nov. 1963, 2♀ (M. Alvarenga, AMNH). *São Paulo*: Estrada Santa Amaro, Engo. Marçilac, km 48, 15 Jan. 1961, ♀ (F. Werner, MZSP). *Rio Grande do Sul*: Garruchos, S Borja, 10 Dec. 1975, 6♀, 3♂, 11 imm. (A. A. Lise, MCN 3223). *PARAGUAY Chaco*: Parque Nacional Defensores del Chaco, Cerro León, 18–27 Nov. 1984, 3♀, 4♂ (J. A. Kochalka, IRNP).

Ocrepeira molle new species
Figures 200–204; Map 5

Holotype. Female holotype from Horco Molle, Tucumán Prov., Argentina, Nov. 1965 (A. Bachmann), in Galiano Coll., MACN no. 8916. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, cephalic region dusky with white setae. Chelicerae, labium, endites dusky orange. Sternum dark orange with white pigment. Coxae light orange; legs dark orange with darker rings, more distinct ventrally. Dorsum of abdomen gray, the anterior dark area includes anterior muscle scars (as in Figure 189); venter with tiny white pigment spots, dusky between epigynum and spinnerets. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.3 diameters apart. Posterior median eyes 1.5 diameters apart. Ocular quadrangle very slightly wider behind than in front. The height of the clypeus equal to 1.2 diameters of anterior median eyes. Total length 8.2 mm. Carapace 3.5 mm long, 2.8 wide, 1.8 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 3.8, metatarsus 2.7, tarsus 0.9. Second patella and tibia 3.6 mm, third 2.3, fourth 3.4.

Male from Argentina. Color as in female but dorsum of abdomen with a white cardiac mark dividing dark area and dark areas not covering anterior pair of muscle scars. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 0.8 diameter apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 di-

ameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 5.0 mm. Carapace 2.7 mm long, 2.3 wide, 1.3 wide behind lateral eyes. First femur 2.8 mm, patella and tibia 3.3, metatarsus 1.8, tarsus 0.8. Second patella and tibia 2.6 mm, third 1.7, fourth 2.5.

Variation. Total length of females 8.2 to 8.5 mm. The illustrations were made from the holotype.

Diagnosis. In ventral view (Fig. 200), the epigynum can be confused with that of *O. hirsuta* (Fig. 119), in posterior view (Fig. 201) with that of *O. fiebrigi* (Fig. 195). In lateral view, the tip of the median apophysis has the silhouette resembling a mouse head (Fig. 204).

Natural History. Specimens were collected by sweeping in the Yungas forest in Argentina.

Specimens Examined. BOLIVIA *Santa Cruz*: Santa Rosa, N Mataral, 1,100 m, 14–15 Dec. 1984, 4♀, ♂ (L. Peña, AMNH). *Chuquisaca*: E Monteagudo, 1,600 m, 21–24 Dec. 1984, 2♀, 2♂ (L. Peña, AMNH). ARGENTINA *Salta*: El Rey National Park, Pozo Verde Trail, 950 m, 10–13 Dec. 1987, 3♂ (S., J. Peck, AMNH).

Ocrepeira gima new species
Figures 205–211; Map 5

Holotype. Female holotype, male paratype from Chapada dos Guimarães, Mato Grosso State, Brazil, Nov. 1963 (M. Alvarenga), in AMNH. The specific name is an arbitrary combination of letters.

Description. Female holotype. Carapace orange with many short white setae. Chelicerae, labium, endites orange. Sternum orange with some darker streaks. Coxae, legs orange. Anterior of dorsum of abdomen dark, dark area enclosing first pair of muscle scars, posterior with faint transverse bands (Fig. 208); venter gray with a pair of white patches (Fig. 209). Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle slightly wider than long, wider behind than in front. Height

of clypeus equal to 1.3 diameters of anterior median eyes. Posterior median eyes on swelling. Abdomen as in Figure 208. Total length 9.5 mm. Carapace 4.0 mm long, 3.4 wide, 1.8 wide behind lateral eyes. First femur 3.9 mm, patella and tibia 4.6, metatarsus 2.9, tarsus 1.1. Second patella and tibia 4.3 mm, third 2.8, fourth 4.1.

Male paratype. Color as in female, but with white pigment under orange sternum, legs with dark rings, and anterior dark area of abdomen between tubercles not enclosing anterior muscle scars. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes 0.8 diameter apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle slightly longer than wide, narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Third and fourth trochanters each with one macroseta. Total length 5.2 mm. Carapace 2.9 mm long, 2.4 wide, 1.2 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.2, metatarsus 2.0, tarsus 0.8. Second patella and tibia 2.9 mm, third 2.0, fourth 2.7.

Note. Males and females were collected at the same locality.

Variation. Total length of females 9.5 to 10.5 mm. Illustrations were made from the holotype and the paratype from the type locality.

Diagnosis. This species resembles *O. lurida* (Figs. 160–166) and is distinguished from it by the laterally flattened scape (or scar of the torn scape), and by the curved shape of the terminal apophysis of the palpus (Fig. 210).

Specimens Examined. BRAZIL *Mato Grosso*: Rio Xingu, Pôsto Jacaré, Nov. 1961, ♀ (M. Alvarenga, F. Werner, AMNH); Jaciara, Nov. 1963, ♀ (M. Alvarenga, AMNH).

Ocrepeira pinhal new species Figures 212–215; Map 5

Holotype. Female holotype from Pinhal, Santa Catarina State, Brazil, Dec. 1948 (A. Maller), in AMNH. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange-brown with dark and white hairs. Chelicerae orange-brown. Labium, endites brown. Sternum orange, darker on sides. Coxae orange with brown margins; legs dark orange with darker rings. Dorsum of abdomen white to brown with two black transverse bars posteriorly (Fig. 215); venter dusky. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes 1 diameter apart. Posterior median eyes 2 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen oval with two round humps facing anteriorly (Fig. 215). Total length 8.0 mm. Carapace 3.2 mm long, 2.7 wide, 1.7 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.5, metatarsus 2.4, tarsus 0.9. Second patella and tibia 3.4 mm, third 2.1, fourth 3.2.

Variation. Total length of females 7.0 to 8.5 mm. The paratypes have a pair of white patches on the venter of the abdomen. The illustration was made from the holotype.

Diagnosis. The shape of the ventral face of the epigynum (Fig. 212) differs from that of other species and, unlike most others, the lateral plates touch in the midline in posterior view (Fig. 213).

Specimens Examined. BRAZIL *Santa Catarina*: Pinhal, Dec. 1947, 2♀, Jan. 1948 4♀, Dec. 1948–Jan. 1950, 2♀ paratypes (A. Maller, AMNH). *Rio Grande do Sul*: Garuchos, São Borja, 9 Dec. 1975, ♀ (A. A. Lise, MCN 3272).

Ocrepeira maltana new species Figures 216–217; Map 6

Holotype. Male holotype and one male paratype from Machupicchu, above ruins, 2,600–2,800 m, Depto. Cuzco, Peru, 1–5 July 1964 (B. Malkin), in AMNH. The specific name is an arbitrary combination of letters.

Description. Male holotype. Carapace reddish brown. Chelicerae dark brown, distally lighter. Labium, endites brown. Sternum brown, posterior lighter. Coxae dark orange. Legs red-brown with black

rings. Dorsum of abdomen with anterior dark area covering the first pair of muscle scars, posterior with dark folium (Fig. 217); venter black. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1.1 diameters of anterior median eyes. Fourth coxa with one macroseta without tubercle. Total length 3.8 mm. Carapace 2.1 mm long, 1.6 wide, 0.9 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 2.9, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.4 mm, third 1.3, fourth 1.7.

Diagnosis. Unlike that of other species of the genus, this male resembles that of *Alpaida* species by having the tip of the paramedian apophysis covered by the cymbium, by having the axis of the radix at an almost right angle to the margin of the cymbium, by the long curved embolus, and by the shape of the median apophysis (Fig. 216). Also the tooth on the endite is opposed by a tooth on the palpal trochanter. However, the coloration of the abdomen and the pointed tip of the paramedian apophysis, hidden by the cymbium, place this male in *Ocrepeira*.

Ocrepeira bispinosa (Mello-Leitão),
new combination

Figures 218–223; Map 5

Carepalxis bispinosus Mello-Leitão, 1945: 173. Immature holotype and one smaller imm. paratype from Monjolinho, Corumbá, Goiás State, Brazil, in MZSP, examined. Brignoli, 1983: 264.

Wixia bicornuta Mello-Leitão, 1949: 19, fig. 11, imm. Immature holotype from confluence of Rio Culuene and Rio Xingu, Mato Grosso State, Brazil, in MNRJ, examined. Brignoli, 1983: 281. NEW SYNONYMY.

Synonymy. Since the types of both *C. bispinosus* and *W. bicornuta* are immature, the synonymy remains uncertain.

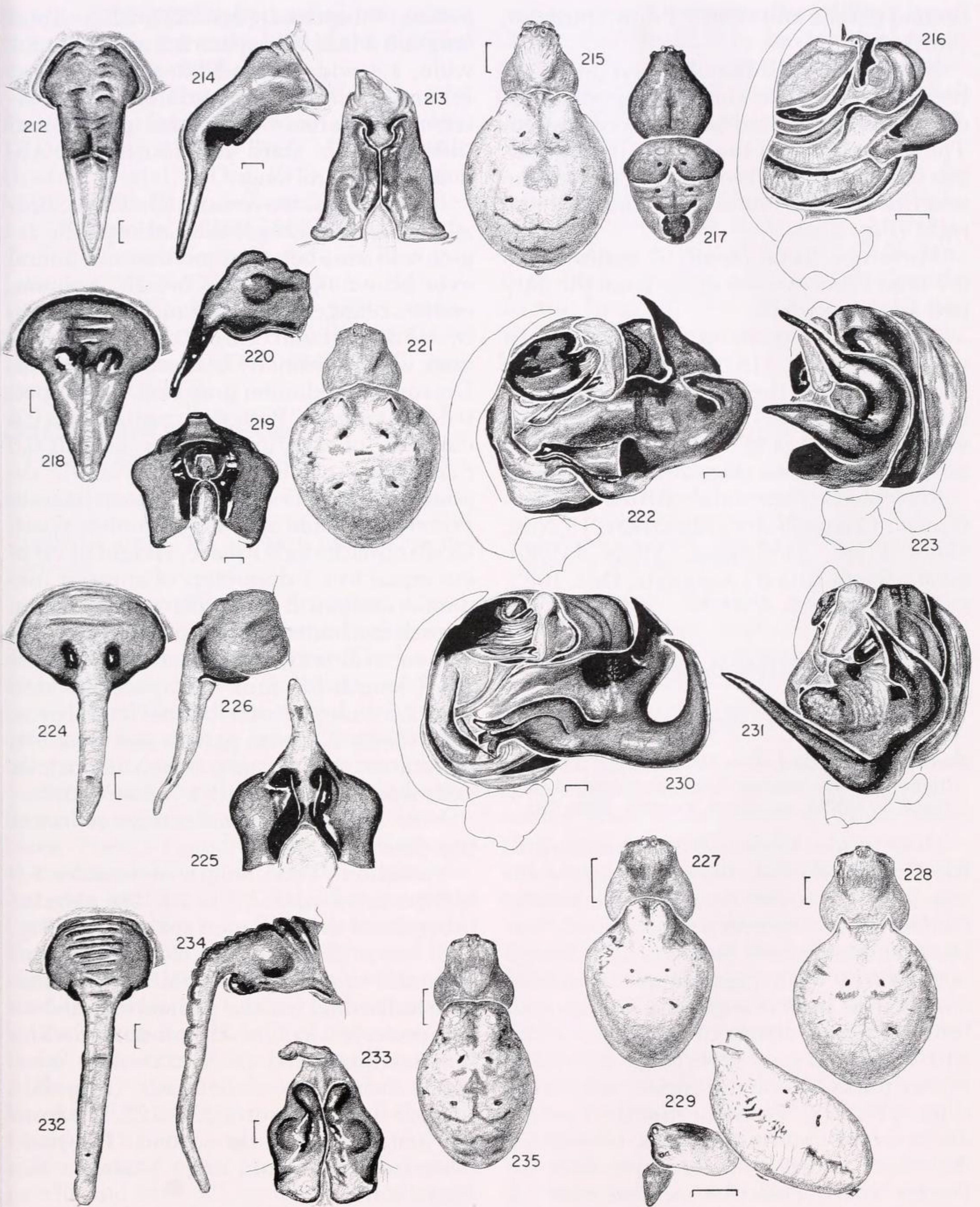
Description. Female from Santa Rita do Araguaia, Goiás, Brazil. Carapace orange, cephalic region darkest. Chelicerae orange with a dark patch. Labium, endites dark orange. Sternum orange. Coxae orange; legs orange with indistinct dark rings. Dorsum of abdomen with gray and black patches, no distinct marks (Fig. 221); venter dusky orange. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 1.7 diameters apart. Ocular quadrangle wider than long, wider behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen with a pair of pointed tubercles close together (Fig. 221). Total length 8.5 mm. Carapace 3.4 mm long, 3.1 wide, 2.0 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 4.0, metatarsus 2.7, tarsus 0.9. Second patella and tibia 3.7 mm, third 2.5, fourth 3.4.

Male from Chapada dos Guimaraes, Mato Grosso, Brazil. Coloration as in female. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 2 diameters apart on a swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.4 diameters of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen with two anterior spine-shaped tubercles as in *O. gnomo*, each with a sclerotized cap. Total length 4.8 mm. Carapace 2.9 mm long, 2.9 wide, 1.5 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.7, metatarsus 2.3, tarsus 1.1.

Figures 212–215. *Ocrepeira pinhal* n. sp., female. 212–214, epigynum. 212, ventral. 213, posterior. 214, lateral. 215, dorsal.

Figures 216–217. *O. maltana* n. sp., male. 216, left palpus. 217, dorsal.

Figures 218–223. *O. bispinosa* (Mello-Leitão). 218–221, female. 218–220, epigynum. 218, ventral. 219, posterior. 220, lateral. 221, dorsal. 222, 223, male palpus.



Figures 224-231. *O. gnomo* (Mello-Leitão). 224-229, female. 224-226, epigynum. 224, ventral. 225, posterior. 226, lateral. 227, 228, dorsal. 229, lateral. 230, 231, male palpus.

Figures 232-235. *O. lisei* n. sp., female. 232-234, epigynum. 232, ventral. 233, posterior. 234, lateral. 235, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

Second patella and tibia 3.1 mm, third 2.0, fourth 2.7.

Note. Males and females were matched because they have similar-shaped tubercles with a sclerotized cap on the abdomen. The upper prong of the left median apophysis of the palpus is broken, and the outline was drawn from the mirror image of the right (Fig. 223).

Variation. Total length of males 4.8 to 5.7 mm. Figures were made from the only two adults available.

Diagnosis. *Ocrepeira bispinosa* has a wider scape (Fig. 218) than does *O. gnomo* (Fig. 224), and the median apophysis of the male palpus has a "vertical" keel in its widest portion (Fig. 222), absent in the male of *O. gnomo* (Fig. 230).

Specimens Examined. BRAZIL *Mato Grosso*: Chapada dos Guimarães, 18 Nov. 1983, ♂ (M. Hoffmann, MCN 11986). *Goiás*: Santa Rita do Araguaia, Dec. 1963, ♀ (M. Alvarenga, AMNH).

Ocrepeira gnomo (Mello-Leitão),
new combination

Figures 224–231; Map 5

Wixia gnomo Mello-Leitão, 1943: 195, fig. 25, imm. Immature male holotype from Rio Grande do Sul, Brazil, in MNRJ, examined. Brignoli, 1983: 281.

Description. Female from Montenegro, Rio Grande do Sul, Brazil. Carapace orange, cephalic region darkest, clypeus dark. Chelicerae brown with a yellow patch. Labium, endites brown. Sternum light orange underlain by white pigment spots and edge dark. Coxae light orange; legs orange with brown rings. Dorsum of abdomen white with black and gray spots (Figs. 227, 228); venter dusky. Cephalic region very wide (Figs. 227, 228). Posterior median eyes 1.1 diameters of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.2 diameters apart. Posterior median eyes on swelling, facing forward and to sides. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with pro-

jecting tubercles (Figs. 227–229). Total length 5.4 mm. Carapace 2.3 mm long, 2.1 wide, 1.4 wide behind lateral eyes. First femur 2.1 mm, patella and tibia 2.7, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.4 mm, third 1.5, fourth 2.1. Abdomen 4.9 mm long.

Male from Santo Amaro, São Paulo, Brazil. Carapace orange, sides of cephalic region and area between median and lateral eyes brown. Chelicerae brown. Labium, endites orange. Sternum orange underlain by white pigment. Coxae orange; legs orange with indistinctly bordered dark rings. Dorsum of abdomen gray and white spotted, venter gray. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.7 diameter apart, 1.5 diameters from laterals. Posterior median eyes 1.5 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1.1 diameters of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen oval with two anterior tubercles. Total length 5.3 mm. Carapace 2.8 mm long, 2.5 wide, 1.3 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 2.0, tarsus 0.9. Second patella and tibia 2.7 mm, third 1.7, fourth 2.5.

Note. Males and females were collected together.

Variation. Total length of females 5.0 to 5.8 mm, of males 4.1 to 5.2. The anterior tubercles of the abdomen are pointed (Fig. 228) or swollen humps (Fig. 227), and proximal to each other pointing forward. One individual has the pedicel inserted on the posterior half of the abdomen. The females illustrated (Figs. 224–229) were made from two individuals from Rio Grande do Sul: Figures 224–227, 229 from the first, 228 from the second. The male illustrated came from Engo. Marcilac, São Paulo State.

Diagnosis. Females differ from those of *O. bispinosa* by the narrow scape with parallel sides, from those of *O. lisei* (Fig. 233) by the larger posterior median plate (Fig. 225). The male differs from that of *O.*

bispinosa (Fig. 222) by having two "horizontal" keels above the base of the median apophysis (Fig. 230).

Specimens Examined. BRAZIL *São Paulo*: Engo. Marcilac, Santo Amaro, 16–17 Dec. 1966, ♂ (P. de Biasi, MZSP 5400a); Honto Florestal [?], Dec. 1943, ♀, ♂ (F. Lane, MZSP 4549). *Paraná*: Curitiba, Nov. 1938, ♂ (F. S. Pereira, MZSP 7566). *Rio Grande do Sul*: Campo Bom, 28 Nov. 1979, ♀ (C. J. Becker, MCN 8778); Carazinho, 10 Nov. 1979, ♀ (H. Bischoff, MCN 8680); Montenegro, 1 Dec. 1977, ♀ (H. A. Gestal, MCN 7476); Triunfo, 20 Oct. 1947, ♀ (T. Arigony, MCN 6907).

Ocrepeira lisei new species
Figures 232–235; Map 5

Holotype. Female holotype from Canela, Rio Grande do Sul State, Brazil, 26 Dec. 1974 (A. A. Lise), in MCN no. 10569. The species is named after the collector.

Description. Female holotype. Carapace orange-brown, cephalic region and sides of thoracic region darker. Chelicerae distally dark brown. Labium, endites brown. Sternum orange-brown, lightest in center. Coxae orange-brown; legs orange-brown with darker patches. Dorsum of abdomen whitish with dark spots and posterior transverse bars (Fig. 235); venter black. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.5 diameters apart. Posterior median eyes on swelling and facing laterally. Ocular quadrangle wider behind than in front. Lateral eyes separated by their diameter. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen with pair of anterior-facing tubercles (Fig. 235). Total length 6.6 mm. Carapace 2.8 mm long, 2.3 wide, 1.5 wide behind lateral eyes. First femur 2.4 mm, patella and tibia 3.0, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.7 mm, third 1.7, fourth 2.7. Abdomen 6.5 mm long.

Variation. Total length of females 5.2 to 7.7 mm. The illustration was made from the holotype.

Diagnosis. *Ocrepeira lisei* differs from *O. gnomo* (Fig. 225) by having the lateral plates overlapping in posterior view of the epigynum (Fig. 233), and from *O. pinhal* (Fig. 212) by a scape with parallel sides (Fig. 232).

Specimens Examined. BRAZIL *Rio de Janeiro*: Petrópolis, Dec. 1945, ♀ (H. Sick, AMNH); Mar. 1946, ♀ (H. Sick, AMNH). *Santa Catarina*: Pinhal, Dec. 1947, 2♀, Jan. 1948, 3♀ (A. Maller, AMNH). *Rio Grande do Sul*: Bagé, 23 Oct. 1981, ♀ (A. A. Lise, MCN 9964); Porto Alegre, ♀ (P. Buck, MNRJ).

Ocrepeira gulielmi new species
Figures 236–242; Map 5

Holotype. Female holotype, paratypes: two females and four males from La Planada, 7 km S of Chocónés, Depto. Nariño, Colombia, July 1986 (W. Eberhard), in MCZ. The species is named after colleague William Eberhard, the collector.

Description. Female holotype. Carapace light orange, cephalic region dusky with light setae. Chelicerae dusky orange. Labium, endites orange. Sternum, coxae light orange. Legs light orange, distal articles dusky. Anterior of dorsum of abdomen dark, posterior with five pairs of black spots emphasized by light rings (Fig. 239); venter black with a pair of white bands (Fig. 240). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart, 1.3 diameters from laterals. Posterior median eyes their diameter apart, 2.5 diameters from laterals. Posterior median eyes on a swelling. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Abdomen with indistinct humps (Fig. 239). Total length 5.0 mm. Carapace 2.3 mm long, 1.7 wide, 1.0 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.9, metatarsus 1.9, tarsus 0.9. Second patella and tibia 2.1 mm, third 1.3, fourth 1.7.

Male paratype from type locality. Color as in female, but legs faintly ringed. Posterior median eyes same diameter as an-

terior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart, their diameter from laterals. Posterior median eyes 0.8 diameter apart, 1.8 diameters from laterals. Posterior median eyes on slight swelling. Ocular quadrangle square, slightly narrower behind than in front. Fourth coxa with a macroseta on a tubercle. Right fourth trochanter with a macroseta, none on left. Total length 3.8 mm. Carapace 2.1 mm long, 1.7 wide, 0.8 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.8, metatarsus 1.6, tarsus 0.7. Second patella and tibia 2.3 mm, third 1.1, fourth 1.9.

Note. Males and females were collected together and have similar markings on the abdomen.

Variation. The male described had a macroseta on the right trochanter but not on the left; none of the others had a fourth trochanter macroseta. Total length of females 4.5 to 5.6 mm, of males 3.6 to 3.8. The illustrations were made from the holotype and from a male from the type locality.

Diagnosis. Unlike that of other species the female scape has a swelling above its tip (Fig. 236). As in *O. atuncela* (Fig. 254) the posterior median plate has parallel sides (Fig. 237) but differs by a deep groove on each side of its base (Figs. 237, 238). The male differs from that of *O. steineri* (Fig. 240) by the shape of the base of the median apophysis (Fig. 241).

Specimens Examined. COLOMBIA *Nariño*: La Planada, 1,800 m, 7 km S Chocónés, July 1986, ♀, 3♂ paratypes (W. Eberhard, MCZ). ECUADOR *Pichincha*: Río Faisanes, 15 km NE La Palma, 1,380 m, 17 Feb. 1979, 2♀ (L. Burnham, MCZ).

Ocrepeira steineri new species Figures 243–248; Map 5

Holotype. Female holotype, female and male paratypes from Cerro de la Neblina, 1,690 m, Territ. Feder. Amazonas, Venezuela, 12 Feb. 1985 (W. E. Steiner), in USNM. The species is named after the collector.

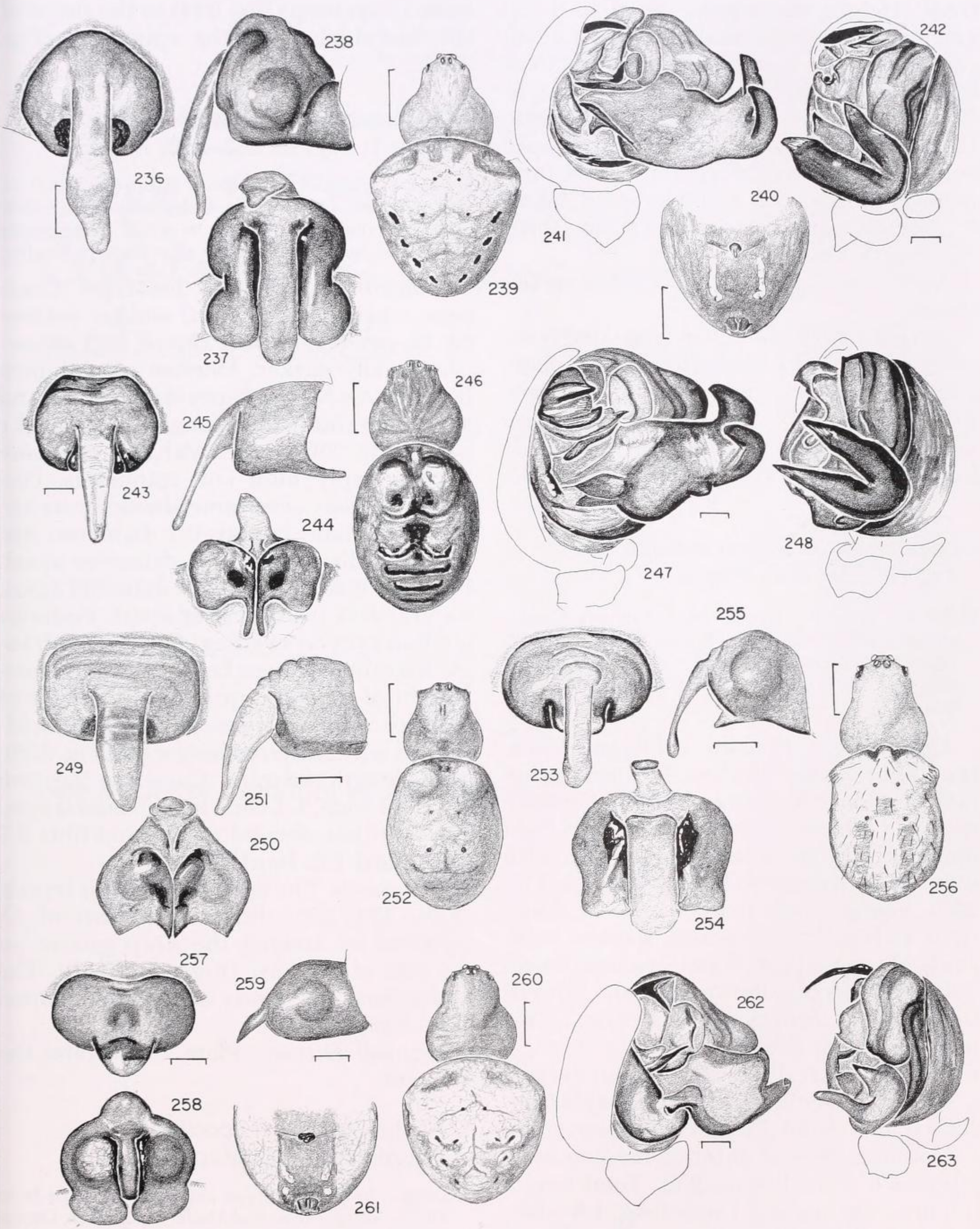
Description. Female holotype. Carapace dark orange with white setae, sides of thoracic region lightest. Chelicerae orange, distally brown. Labium, endites brown. Sternum orange, borders darker. Coxae dusky orange; legs orange with indistinct dark rings. Dorsum of abdomen white, gray, and with black caps on humps and black transverse bars posteriorly (Fig. 246); venter black. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.3 diameters apart. Lateral eyes their diameter apart. Posterior median eyes on swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with tips of humps facing anteriorly (Fig. 246). Total length 4.8 mm. Carapace 2.5 mm long, 1.9 wide, 1.2 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.7, metatarsus 1.8, tarsus 0.8. Second patella and tibia 2.4 mm, third 1.4, fourth 2.2.

Male paratype. Color as in female except without the transverse bars on the abdomen; in its place there is a black folium. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle wider behind than in

Figures 236–242. *Ocrepeira gulielmi* n. sp. 236–240, female. 236–238, epigynum. 236, ventral. 237, posterior. 238, lateral. 239, dorsal. 240, abdomen, ventral. 241, 242, left male palpus.

Figures 243–248. *O. steineri* n. sp. 243–246, female. 243–245, epigynum. 243, ventral. 244, posterior. 245, lateral. 246, dorsal. 247, 248, male palpus.

Figures 249–252. *O. macaiba* n. sp., female. 249–251, epigynum. 249, ventral. 250, posterior. 251, lateral. 252, dorsal.



Figures 253-256. *O. atuncela* n. sp., female. 253-255, epigynum. 253, ventral. 254, posterior. 255, lateral. 256, dorsal.
 Figures 257-263. *O. anta* n. sp. 257-261, female. 257-259, epigynum. 257, ventral. 258, posterior. 259, lateral. 260, dorsal.
 261, abdomen, ventral. 262, 263, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen as in female but smaller. Total length 4.0 mm. Carapace 2.5 mm long, 2.0 wide, 0.9 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.2, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.8 mm, third 1.7, fourth 2.3.

Note. The male was collected with the female.

Diagnosis. The female is separated from others by the lack of posterior median plate, and by the lateral plates with dorsal projection (Fig. 244). The base of the male's median apophysis (Fig. 247) is shaped differently from that of *O. guielmi* (Fig. 241).

Ocrepeira macaiba new species Figures 249–252; Map 5

Holotype. Female holotype from Fazenda Canao, Macaíba, Rio Grande do Norte, Brazil, 15 Sept. 1951 (M. Alvarenga), in MZSP no. 5383. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace light orange, darkest on sides of thoracic region. Chelicerae, labium, endites orange. Sternum orange. Coxae, legs light orange. Dorsum of abdomen white with some dusky transverse bars posteriorly (Fig. 252); venter dusky with a pair of white spots in front of spinnerets, darkest anteriorly above pedicel. Posterior median eyes 1.3 diameters of anterior medians, laterals 0.9 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.5 diameters apart. Posterior median eyes on a swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen as in Figure 252. Total length 4.3 mm. Carapace 2.1 mm long, 1.8 wide, 1.1 wide behind lateral eyes. First femur 2.1 mm, patella and tibia 2.3, metatarsus 1.5, tarsus 0.6. Second patella and tibia 2.2 mm, third 1.4, fourth 2.0.

Diagnosis. *Ocrepeira macaiba* differs

from *O. steineri* (Fig. 244) in the shape of the lateral plates of the epigynum (Fig. 250).

Ocrepeira atuncela new species Plate 1; Figures 253–256; Map 5

Holotype. Female from above Atuncela, 1,800 m, cloud forest, Depto. Valle, Colombia, 15 Mar. 1969 (W. Eberhard, no. 173p), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace, chelicerae, labium, endites yellowish. Sternum yellowish. Coxae, legs yellowish, distally darker. Dorsum of abdomen light yellow with anterior dark marks, and with two indistinct longitudinal dusky bands (Fig. 256); venter with a black square between epigynum and spinnerets. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Lateral eyes 0.3 diameter apart. Posterior median eyes on swelling. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen shield-shaped with scattered long setae (Fig. 256). Total length 4.8 mm. Carapace 2.4 mm long, 1.9 wide, 1.1 wide behind lateral eyes. First legs lost. Second patella and tibia 2.7 mm, third 1.6, fourth 2.6.

Diagnosis. The epigynum of this female (Figs. 254, 255) differs from that of *O. guielmi* by lacking the deep groove on the side of the base (Figs. 237, 238). The abdomen is differently marked and shaped (Fig. 256).

Natural History. Plate 1 illustrates the orb web.

Ocrepeira anta new species Figures 257–263; Map 5

Holotype. Female holotype and male paratype from Alto de Minas, 30 km S of Medellin, 2,700 m, Depto. Antioquia, Colombia, 27 Aug. 1963 (P. B. Schneble), in MCZ. The specific name is an arbitrary combination of letters.

Description. Female holotype. Carapace, chelicerae, labium, endites yellow-

ish. Sternum yellow. Legs yellowish. Dorsum of abdomen white with pairs of dark spots, each surrounded by a light ring (Fig. 260); venter dusky with a pair of white spots (Fig. 261). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1.1 diameters of anterior median eyes. Abdomen with indistinct humps (Fig. 260). Total length 5.5 mm. Carapace 2.5 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.9, metatarsus 2.0, tarsus 0.8. Second patella and tibia 2.7 mm, third 1.5, fourth lost.

Male paratype. Color as in female. Posterior median eyes 0.9 diameter of anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.6. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle slightly longer than wide, slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Total length 4.2 mm. Carapace 2.0 mm long, 1.6 wide, 0.9 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.7, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.2 mm, third 1.3, fourth 1.9.

Note. Males and females were collected together.

Variation. Total length of females 5.2 to 5.5 mm. Illustrations were made from the holotype and from the male collected with it.

Diagnosis. The female differs from that of other species by the narrow, sclerotized median plate of the epigynum (Fig. 258) and the short semicircular scape (Fig. 257). The male differs by the shape of the terminal and median apophyses (Figs. 262, 263).

Specimens Examined. COLOMBIA *Antioquia:* Guarne, 2,000 m, July–Aug. 1976, 2♀ (P. Schneble, MCZ).

Ocrepeira barbara new species Figures 264–268; Map 6

Holotype. Female holotype from “El Abiseo”, Río Montecristo campsite, La Playa, Parque Nacional Río Abiseo, Depto. San Martín, Peru, 19 Aug. 1987 (B. Roth), in MUSM. The specific name is a noun in apposition after the collector.

Description. Female holotype. Carapace light orange with short, white setae, darkest in eye region. Chelicerae, labium, endites light orange. Sternum orange, dusky around border. Coxae, legs dusky orange. Dorsum of abdomen with dark mark between tubercles, posterior with pairs of black streaks and indistinct transverse darker bands (Fig. 267); venter with a pair of white spots posteriorly (Fig. 268). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 0.9 diameter apart. Posterior median eyes on swelling. Ocular quadrangle square. Height of clypeus equal to 1.3 diameters of anterior median eyes. Abdomen with small humps (Fig. 267). Total length 8.2 mm. Carapace 3.6 mm long, 2.8 wide, 1.7 wide behind lateral eyes. First femur 3.6 mm, patella and tibia 4.7, metatarsus 3.1, tarsus 1.3. Second patella and tibia 4.2 mm, third 2.6, fourth 3.7.

Variation. Total length of females 5.8 to 8.2 mm. The specimen from Pumamarca lacks the white spots on the underside. The illustrations were made from the holotype.

Diagnosis. The female differs from others by the drop-shaped scape of the epigynum (Fig. 264) and by the median divisions of the posterior median plate (Fig. 265).

Specimen Examined. PERU *Junín:* Pumamarca, ♀ (K. Jelski, J. Sztolcman, PAN).

Ocrepeira macintyre new species Figures 269–271; Map 6

Holotype. Male holotypes from Baños, 2,200–2,500 m, Tungurahua Prov., Ecuador, Apr. 1939 (W. C. Macintyre), in MCZ. The species is named after the collector.

Description. Male holotype. Carapace orange, anterior of cephalic region and anterior of sides of thoracic region darker. Chelicerae, labium, endites orange. Sternum orange with dusky margin. Coxae orange; legs orange with brown rings. Abdomen with white cardiac mark, a black outline of folium, darker inside of folium than outside; venter gray with a pair of round white spots. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle longer than wide, narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta on tubercle. Fourth trochanter with one macroseta. Abdomen with anterior lateral tubercles (Fig. 271). Total length 6.2 mm. Carapace 3.3 mm long, 2.7 wide, 1.4 wide behind lateral eyes. First femur 3.8 mm, patella and tibia 4.3, metatarsus 2.7, tarsus 1.3. Second patella and tibia 3.6 mm, third 2.1, fourth 3.1.

Diagnosis. The sickle-shaped terminal apophysis and the swelling at the base of the median apophysis (Fig. 269) separate *O. macintyre* from other species.

Ocrepeira tungurahua new species Figures 272–277; Map 6

Holotype. Female holotype, one female and one male paratype from Tungurahua, 2,600 m, Tungurahua Prov., Ecuador, 6 May 1939 (W. Clarke-Macintyre), in AMNH. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace dark orange, with darker streaks, darkest at lateral eyes. Chelicerae, labium, endites dark orange. Sternum dark orange. Coxae, legs orange. Dorsum of abdomen orange-white with pairs of dark spots, the posteriormost pair connected by a transverse line (Fig. 275); venter dusky with indistinct pair of white longitudinal lines. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.7 diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 275. Total length 6.4 mm. Carapace 2.7 mm long, 2.3 wide, 1.4 wide behind lateral eyes. First femur 3.0 mm, patella and tibia 3.8, metatarsus 2.1, tarsus 1.1. Second patella and tibia 3.3 mm, third 1.9, fourth 2.9.

Male paratype from type locality. Color as in female but legs with faintly darker rings. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter with one macroseta. Total length 5.4 mm. Carapace 2.4 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.2, metatarsus 2.0, tarsus 0.9. Second patella and tibia 2.9 mm, third 1.6, fourth 2.3.

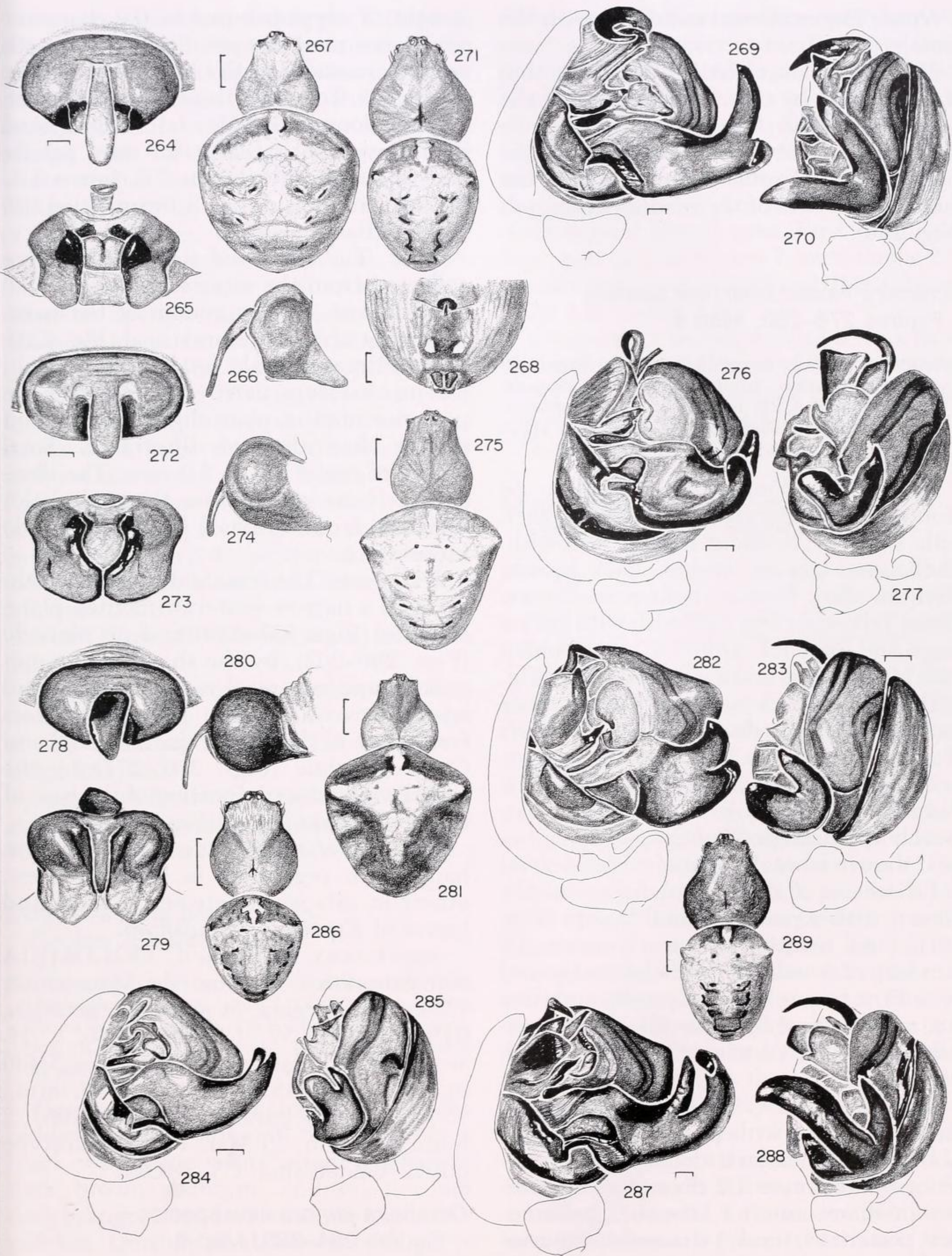
Figures 264–268. *Ocrepeira barbara* n. sp., female. 264–266, epigynum. 264, ventral. 265, posterior. 266, lateral. 267, dorsal. 268, abdomen, ventral.

Figures 269–271. *O. macintyre* n. sp., male. 269, 270, male left palpus. 271, dorsal.

Figures 272–277. *O. tungurahua* n. sp. 272–275, female. 272–274, epigynum. 272, ventral. 273, posterior. 274, lateral. 275, dorsal. 276, 277, male palpus.

Figures 278–283. *O. valderramai* n. sp. 278–281, female. 278–280, epigynum. 278, ventral. 279, posterior. 280, lateral. 281, dorsal. 282, 283, male palpus.

Figures 284–286. *O. jamora* n. sp., male. 284, 285, palpus. 286, dorsal.



Figures 287-289. *O. pista* n. sp., male. 287, 288, palpus. 289, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

Note. The male was collected with the female.

Diagnosis. The female differs from that of *O. barbara* by the circular shape of the posterior median plate (Fig. 273); the male differs from that of other species by the loop of the terminal apophysis and the shape of the base of the median apophysis (Fig. 276).

Ocrepeira valderramai new species
Figures 278–283; Map 6

Holotype. Male holotype with immature female on web in vegetation, from Paramo de Chingaza, Monteredondo, 3,100 m, Depto. Cundinamarca, Colombia, 20 July 1986 (C. Valderrama), in MCZ. The species is named after the collector.

Description. Female from Paramo de Monteserrate. Carapace brownish black with sides of thoracic region yellowish. Chelicerae, labium, endites dark brown. Sternum dark brown, lighter in center. Coxae yellowish; legs yellowish with brown rings and patches. Dorsum of abdomen with black marks and a white triangle (Fig. 281); venter black with a pair of white spots. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.9 diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with a pair of lateral humps (Fig. 281). Total length 7.0 mm. Carapace 2.9 mm long, 2.3 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.8, metatarsus 2.5, tarsus 1.1. Second patella and tibia 3.4 mm, third 2.1, fourth 3.0.

Male holotype. Color darker than in female. Carapace with paired dark streaks. Abdomen with a dark, dorsal folium. Posterior median eyes 1.2 diameters of anterior medians, anterior laterals 1.2 diameters, posterior laterals 1 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Posterior median eyes on a swelling. Ocular quadrangle narrower behind than in front.

Height of clypeus equal to 0.9 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter without macroseta. Total length 5.0 mm. Carapace 2.7 mm long, 2.3 wide, 1.1 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.9, metatarsus 2.5, tarsus 1.1. Second patella and tibia 3.1 mm, third 1.9, fourth 2.6.

Note. The male and the females were collected from the same locality.

Variation. The epigynum of the paratype illustrated is asymmetrical (Fig. 278). A penultimate female, just before the molt, had an oval scape narrow at both ends, the posterior median plate slightly wider and shorter than the one illustrated. Total length of males 5.0 to 5.2 mm. The illustrations were made from the male holotype and from a female from Paramo de Monserrate.

Diagnosis. The female differs from others with a narrow posterior median plate, *O. anta* (Figs. 257–259) and *O. planada* (Figs. 290–292), by the shape of the epigynal scape in ventral view (Fig. 278) and lateral view (Fig. 280). The male differs from those of *O. pista* (Figs. 287, 288) and *O. tungurahua* (Figs. 276, 277) by the raised triangular sculpturing of the base of the median apophysis (Fig. 282).

Natural History. One specimen was hanging in vegetation in a cloud forest, others in orb webs between flowers and leaves of *Espeletia grandiflora*.

Specimens Examined. COLOMBIA *Cundinamarca*: Paramo de Monserrate, 7.5 km NE Bogotá, in natural vegetation, 04°15'N, 74°01'W, 13 Sept. 1986, ♀ (H. Sturm, MCZ); Paramo de Chingaza, 3,400 m, 04°31'N, 73°45'W, 14 Apr. 1986, imm., 15 Apr. 1986, ♀ paratype, 22 Mar. 1987, 2 imm., 3,100 m, 23 Mar. 1987, ♂ paratype (all C. Valderrama, CV, MCZ).

Ocrepeira jamora new species
Figures 284–286; Map 6

Holotype. Male holotype from Cerro Tinajillas, 3,100 m, S of Cuenca, Azuay Prov., Ecuador (L. Peña), in MCZ. The specific name is an arbitrary combination of letters.

Description. Male holotype. Carapace orange with white setae, anterior of cephalic region and sides of thoracic region darkest. Chelicerae, labium, endites dark orange. Sternum orange-brown. Coxae, legs orange with darker rings. Abdomen with white cardiac mark and brown outline of folium (Fig. 286); venter gray with a pair of white patches. Posterior median eyes 1.3 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter without macroseta. Total length 5.0 mm. Carapace 2.5 mm long, 2.0 wide, 1.3 wide behind lateral eyes. First femur 3.0 mm, patella and tibia 3.4, metatarsus 1.9, tarsus 0.8. Second patella and tibia 2.8 mm, third 1.7, fourth 2.3.

Note. Illustrations were made from the holotype.

Diagnosis. *Ocrepeira jamora* differs from other male *Ocrepeira* by the shape of the terminal and median apophyses (Figs. 284, 285).

Specimen Examined. ECUADOR *Tungurahua*: Tungurahua, 2,600 m, 6 June 1939, ♂ (W. Clarke-Macintyre, AMNH).

Ocrepeira pista new species Figures 287–289; Map 6

Holotype. Male holotype and one male paratype from Machupicchu, above ruins, 2,600–2,800 m, Depto. Cuzco, Peru, 1–5 July 1964, beaten from vegetation, (B. Malkin), in AMNH. The specific name is an arbitrary combination of letters.

Description. Male holotype. Carapace reddish brown, sides of thoracic region black with some white setae. Chelicerae dark brown. Labium, endites, sternum dark orange. Legs dark orange with darker patches. Dorsum of abdomen with white cardiac spot and dark folium (Fig. 289); venter black with a pair of contrasting white spots. Posterior median eyes same diameter as anterior medians, laterals 0.8

diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1.1 diameters of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Total length 6.7 mm. Carapace 3.9 mm long, 3.0 wide, 1.5 wide behind lateral eyes. First femur 3.9 mm, patella and tibia 4.7, metatarsus 2.8, tarsus 1.3. Second patella and tibia 4.0 mm, third 2.6, fourth 3.6.

Diagnosis. *Ocrepeira pista* differs from the male of *O. valderramai* by the large lower prong of the median apophysis and the semicircular offset near its base (Figs. 287, 288).

Ocrepeira planada new species Figures 290–296; Map 6

Holotype. Female from La Planada, 1,800 m, 7 km S of Choconés, Depto. Nariño, Colombia, July 1986 (W. Eberhard, 3358), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, posterior of cephalic region dusky, darkest between median and lateral eyes. Chelicerae light orange. Labium, endites orange. Sternum dusky orange. Coxae orange; legs with darker and lighter rings and patches. Dorsum of abdomen with folium and white cardiac mark (Fig. 293); venter dusky with a pair of white spots (Fig. 294). Posterior median eyes 0.9 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 2 diameters from laterals. Posterior median eyes their diameter apart, 3.5 diameters from laterals. Ocular quadrangle slightly longer than wide, narrower behind than in front. Height of clypeus equal to 0.7 diameter of anterior median eyes. Abdomen with a pair of humps (Fig. 293). Total length 9.2 mm. Carapace 3.9 mm long, 3.1 wide, 1.7 wide behind lateral eyes. First femur 3.8 mm, patella and tibia 4.8, metatarsus 3.3, tarsus 1.3. Second patella and tibia 4.4 mm, third 2.7, fourth 4.2.

Male from Río Calima, Valle, Colombia.

Color as in female. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.8 diameter apart, 1.5 from laterals. Posterior median eyes their diameter apart, 3.5 from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.6 diameter of anterior median eyes. Fourth coxa with large posterior tubercle bearing a macroseta. Abdomen as in female. Total length 6.8 mm. Carapace 4.4 mm long, 3.5 wide, 1.7 wide behind lateral eyes. First femur 4.7 mm, patella and tibia 5.5, metatarsus 3.1, tarsus 1.3. Second patella and tibia 4.6 mm, third 2.8, fourth 3.7.

Note. Males and females were matched because of similar markings.

Variation. Total length of females 6.5 to 10.2 mm, of males 5.9 to 6.8. Illustrations were made from the female holotype and a male from the type locality.

Diagnosis. Females can be separated from others with a narrow median posterior plate (Fig. 291) by the long scape having parallel sides and an attachment near the anterior of the base of the epigynum (Figs. 290–292). The male can be separated by the distinctly shaped terminal and median apophyses (Figs. 295, 296).

Specimens Examined. COLOMBIA *Cundinamarca*: road Fusagasuga to Anolaima, 2,800 m, 2 Sept. 1969, ♀ (P., B. Wygodzinsky, AMNH). *Valle*: Río Calima, nr. Lago Calima, 1,400 m, June 1976, ♂ (W. Eberhard, MCZ). *Nariño*: La Planada,

1,800 m, 7 km S Chocones, July 1986, 5♀, ♂ paratypes (W. Eberhard, 3347, MCZ). ECUADOR *Pichincha*: Quebrada La Plata, 2.1 km E Tandapi, 1,550 m, [00°25'N, 78°47'W], 3 Feb. 1979, ♀ (L. Burnham, MCZ). *Napo*: 6.5 km S Baeza, 1,810 m, Feb. 1979, ♀ (L. Burnham, MCZ). Río Yocuchiqui [?], W slope of Andes, ♀ (MCZ).

Ocrepeira ituango new species Figures 297–301; Map 6

Holotype. Female holotype from Municipio de Ituango, 1,450 m, Depto. Antioquia, Colombia, 26 May 1989 (M. A. Serna), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, cephalic region with a black circular patch, black between median and lateral eyes. Chelicerae dark brown. Labium, endites dark brown. Sternum dark brown. Coxae orange with dark patches; legs orange with dark rings. Dorsum of abdomen damaged, with white cardiac mark (Fig. 300); venter black with a pair of white spots (Fig. 301). Posterior median eyes 0.7 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.8 diameter apart, 2.8 diameters from laterals. Posterior median eyes 0.8 diameter apart, 4.5 diameters from laterals. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 300. Total length 10.4 mm. Carapace 4.0 mm long, 3.5 wide, 1.9 wide

Figures 290–296. *Ocrepeira planada* n. sp. 290–294, female. 290–292, epigynum. 290, ventral. 291, posterior. 292, lateral. 293, dorsal. 294, abdomen, ventral. 295, 296, left male palpus.

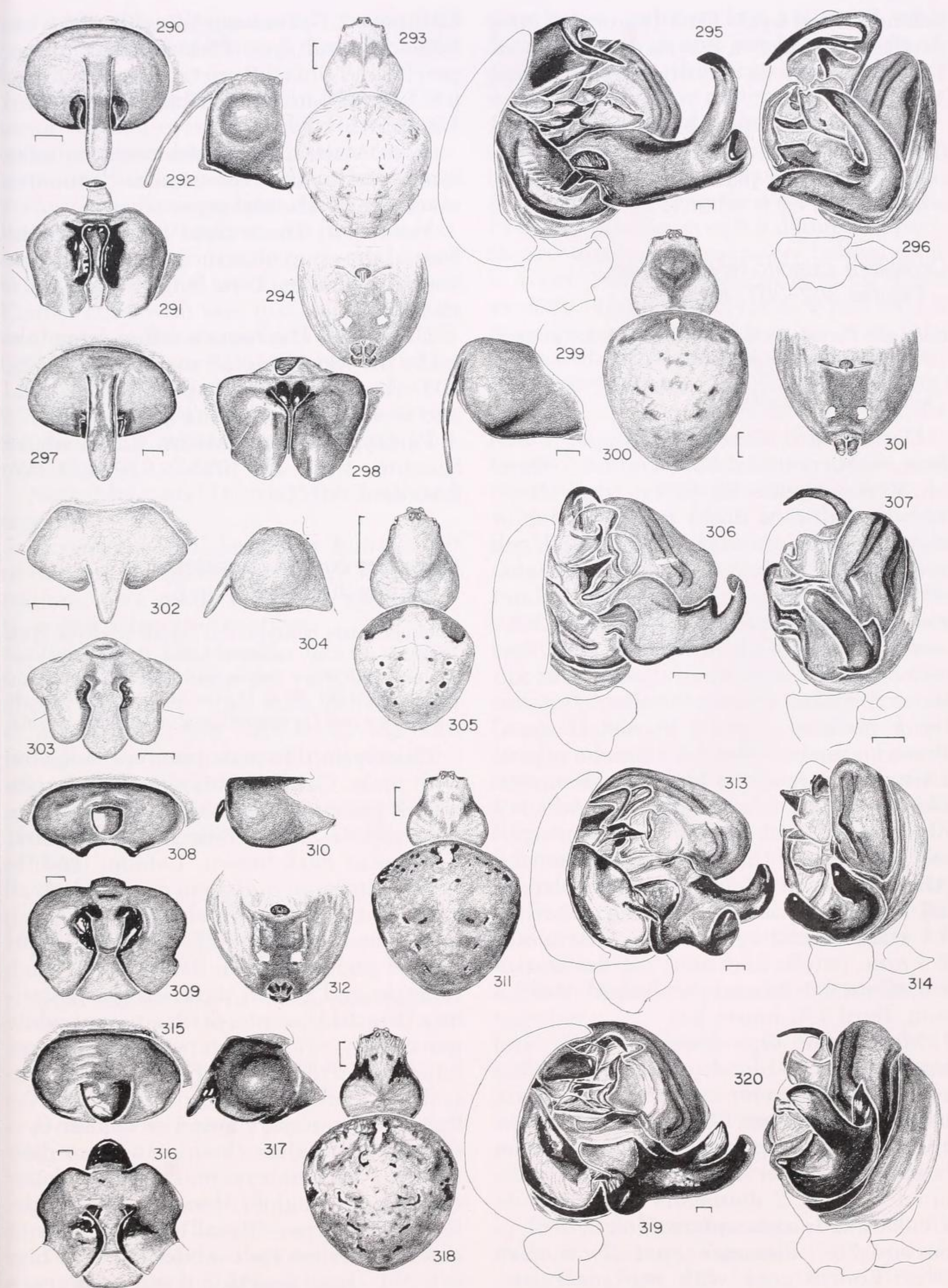
Figures 297–301. *O. ituango* n. sp., female. 297–299, epigynum. 297, ventral. 298, posterior. 299, lateral. 300, dorsal. 301, abdomen, ventral.

Figures 302–307. *O. saladito* n. sp. 302–305, female. 302–304, epigynum. 302, ventral. 303, posterior. 304, lateral. 305, dorsal. 306, 307, male palpus.

Figures 308–314. *O. cuy* n. sp. 308–312, female. 308–310, epigynum. 308, ventral. 309, posterior. 310, lateral. 311, dorsal. 312, abdomen, ventral. 313, 314, male palpus.

Figures 315–320. *O. abiseo* n. sp. 315–318, female. 315–317, epigynum. 315, ventral. 316, posterior. 317, lateral. 318, dorsal. 319, 320, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.



behind lateral eyes. First femur 4.3 mm, patella and tibia 5.4, metatarsus 3.5, tarsus 1.3. Second patella and tibia 5.0 mm, third 3.1, fourth 4.6.

Diagnosis. The female can be separated from *O. planada* (Figs. 290–292) by the posterior lateral plates of the epigynum which touch each other (Fig. 298).

Ocrepeira saladito new species

Figures 302–307; Map 6

Holotype. Female from near Saladito, 1,800 m, Depto. Valle, Colombia, Jan. 1977, (W. Eberhard, 1139), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace, chelicerae, labium, endites yellowish. Sternum yellowish. Coxae, legs yellowish with indistinct dusky rings. Dorsum of abdomen with anterior of each side black and posteriorly six pairs of spots highlighted by white rings, alternating black and red, first pair black, last pair red (Fig. 305); venter dusky, black in median area. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.3 diameters apart. Posterior median eyes 1.1 diameters apart. Laterals separated by half their diameter. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of the anterior median eyes. Abdomen as in Figure 305. Total length 4.7 mm. Carapace 2.3 mm long, 1.7 wide, 1.1 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.8, metatarsus 1.8, tarsus 0.9. Second patella and tibia 2.4 mm, third 1.3, fourth 2.0.

Male from type locality. Color and markings as in female. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 1.2 diameters from laterals. Posterior median eyes their diameter apart, 2 diameters from laterals. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen as in female. Total length 4.2 mm.

Carapace 2.1 mm long, 1.7 wide, 0.8 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.0, metatarsus 1.8, tarsus 0.8. Second patella and tibia 2.2 mm, third 1.3, fourth 1.7.

Note. Males and females came from the same locality and have similar distinctive markings on the abdomen.

Variation. The second female has the base of the epigynum more oval; the scape has parallel sides. Total length of males 4.0 to 4.2 mm.

Diagnosis. The female differs from others by the wide posterior median plate (Fig. 303), the male by the shape of the terminal and median apophyses (Figs. 306, 307)

Paratypes. COLOMBIA Valle: above Saladito, 1,800 m, 1975, ♀, 1979, ♂ (W. Eberhard, MCZ).

Ocrepeira cuy new species

Figures 308–314; Map 6

Holotype. Male holotype and female paratype from Pampa del Cuy, montane forest, Parque Nacional Abiseo, 3,550 m, Depto. San Martín, Peru, 5–12 Mar. 1988 (D. Silva D.), in MUSM. The specific name is a noun in apposition after the type locality.

Description. Female paratype collected with male. Carapace orange-yellow, with a dark patch on each side and long white setae above lateral eyes; clypeus dark. Chelicerae dark brown. Labium, endites brown. Sternum orange in center, dark all around. Coxae yellowish; legs yellowish with brown rings and black patches. Dorsum of abdomen with dark spot on each tubercle and paired dark streaks posteriorly (Fig. 311); venter with a pair of white marks (Fig. 312). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes slightly more than their diameter apart. Posterior median eyes on swelling. Ocular quadrangle slightly longer than wide. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 311. Total length 8.0 mm. Carapace 3.4 mm long, 2.9 wide, 1.6 wide behind lateral eyes. First femur 3.4 mm, patella

and tibia 4.3, metatarsus 2.7, tarsus 0.9. Second patella and tibia 3.7 mm, third 2.3, fourth 3.2.

Male holotype. Color as in female. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Posterior median eyes on swelling. Ocular quadrangle square. Height of clypeus equal to 0.9 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter without macroseta. Total length 6.2 mm. Carapace 3.2 mm long, 2.7 wide, 1.3 wide behind lateral eyes. First femur 3.7 mm, patella and tibia 4.0, metatarsus 2.6, tarsus 1.0. Second patella and tibia 3.1 mm, third 1.9, fourth 2.7.

Note. Males and females were collected together.

Variation. Total length of females 8.0 to 8.3 mm, of males 5.9 to 6.2. The illustrations were made from the male holotype and a female paratype.

Diagnosis. The female has a smaller scape (Fig. 308) than the very similar *O. abiseo* (Fig. 315). The male differs from *O. abiseo* (Figs. 319, 320) by having both prongs of the median apophysis about the same length (Figs. 313, 314).

Paratypes. All from type locality: 8 Mar. 1988, 5♀, 2 Mar. 1988, ♂ (all D. Silva D., MUSM).

Ocrepeira abiseo new species Figures 315–321; Map 6

Holotype. Male holotype, four female paratypes, from Parque Nacional Abiseo, Puerta del Monte, 3,300 m, Depto. San Martín, Peru, 4 Mar. 1988 (D. Silva D., A. Salirrosas), in MUSM. The specific name is a noun in apposition after the type locality.

Description. Female paratype collected with male. Carapace orange, with a dark patch on each side, posterior of cephalic region, sides of cephalic and thoracic region dark, white hair-like setae behind lateral eyes. Chelicerae dark brown with median light patch. Labium black, endites brown to orange. Sternum orange in middle, each side dark brown. Coxae yellowish

with brown patches; legs yellowish with dark brown rings and patches. Dorsum of abdomen with white cardiac mark and with folium outline posteriorly (Fig. 318); venter with pair of light patches posteriorly. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle narrower behind than in front. Posterior median eyes on slight swelling. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen with pair of humps (Fig. 318). Total length 10.2 mm. Carapace 4.2 mm long, 3.4 wide, 1.8 wide behind lateral eyes. First femur 4.4 mm, patella and tibia 5.2, metatarsus 3.3, tarsus 1.3. Second patella and tibia 4.8 mm, third 2.9, fourth 4.2.

Male holotype. Color as in female, but legs light orange. Posterior median eyes same diameter as anterior medians, anterior laterals 0.8 diameter, posterior laterals 0.6. Anterior median eyes 0.8 diameter apart, 1.5 diameters from laterals. Posterior median eyes 0.7 diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter without macroseta. Abdomen with pair of tubercles. Total length 8.2 mm. Carapace 4.4 mm long, 3.6 wide, 1.8 wide behind lateral eyes. First femur 4.3 mm, patella and tibia 5.4, metatarsus 3.5, tarsus 1.3. Second patella and tibia 4.5 mm, third 2.7, fourth 3.7.

Note. Males and females were collected together.

Variation. Total length of females 8.1 to 10.8 mm, of males 6.1 to 8.2. The scape of the epigynum (when present) is variable in shape; it is torn off from most individuals. The illustrations were made from the male holotype and the female collected with it.

Diagnosis. Females can be confused with those of *O. cuy* (Figs. 308–310) and *O. tinajillas* (Figs. 322–324); they differ by having a larger scape (Fig. 315) than that of *O. cuy* and a shorter scape (Fig. 317)

than that of *O. tinajillas* (Fig. 324). The male differs from that of *A. cuy* (Figs. 313, 314) by having one prong of the median apophysis longer than the other (Figs. 319–321) and from *O. tinajillas* (Figs. 327, 328) by the differently shaped tegulum and median apophysis (Figs. 319, 320).

Natural History. The collecting sites were montane forest.

Specimens Examined. PERU *San Martín*: Parque Nacional Abiseo, Puerta del Monte, 3,300 m, 4 Mar. 1988, 5♀ paratypes, 13 Mar. 1988, 8♀, 2♂ paratypes, 14 Mar. 1988, ♀ paratype (D. Silva D., A. Salirrosas, MUSM); Pampa del Cuy, 3,550 m, 5–12 Mar. 1988, 2♀, ♂ (D. Silva D., MUSM).

Ocrepeira tinajillas new species

Figures 322–328; Map 6

Holotype. Female holotype and male paratype and one immature from Cerro Tinajillas, 3,100 m, S of Cuenca, Azuay Prov., Ecuador, 18–21 Mar. 1965 (L. Peña), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange. Chelicerae orange. Labium, endites brown. Sternum orange, brown around border. Coxae orange and brown; legs orange with brown rings. Dorsum of abdomen with a dark sickle-shaped area anteriorly between tubercles and a small posterior folium (Fig. 325); venter dusky with a pair of white spots (Fig. 326). Eyes subequal. Anterior median eyes 1.2 diameters apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen subspherical, with widely separated humps (Fig. 325). Total length 8.2 mm. Carapace 3.7 mm long, 2.8

wide, 1.8 wide behind lateral eyes. First femur 3.6 mm, patella and tibia 4.7, metatarsus 3.1, tarsus 1.3. Second patella and tibia 4.2 mm, third 2.5, fourth 3.8.

Male paratype. Color as in female, but abdomen with a white cardiac mark and pairs of dark patches posteriorly. Posterior median eyes 1.2 diameters of anterior medians, anterior laterals 0.9 diameter, posterior laterals 0.8. Anterior median eyes 1.2 diameters apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter without macroseta. Total length 6.4 mm. Carapace 3.8 mm long, 3.1 wide, 1.5 wide behind lateral eyes. First femur 3.9 mm, patella and tibia 4.7, metatarsus 2.7, tarsus 1.1. Second patella and tibia 3.8 mm, third 2.4, fourth 3.4.

Note. The male was collected with the female.

Variation. Total length of females 6.2 to 8.7 mm, of males 4.5 to 6.4. The scape of the second female's epigynum has parallel sides and is distally rounded; also the embolus and the conductor of the second male are of slightly different shape. The illustrations were made from the female holotype and the male paratype collected with it.

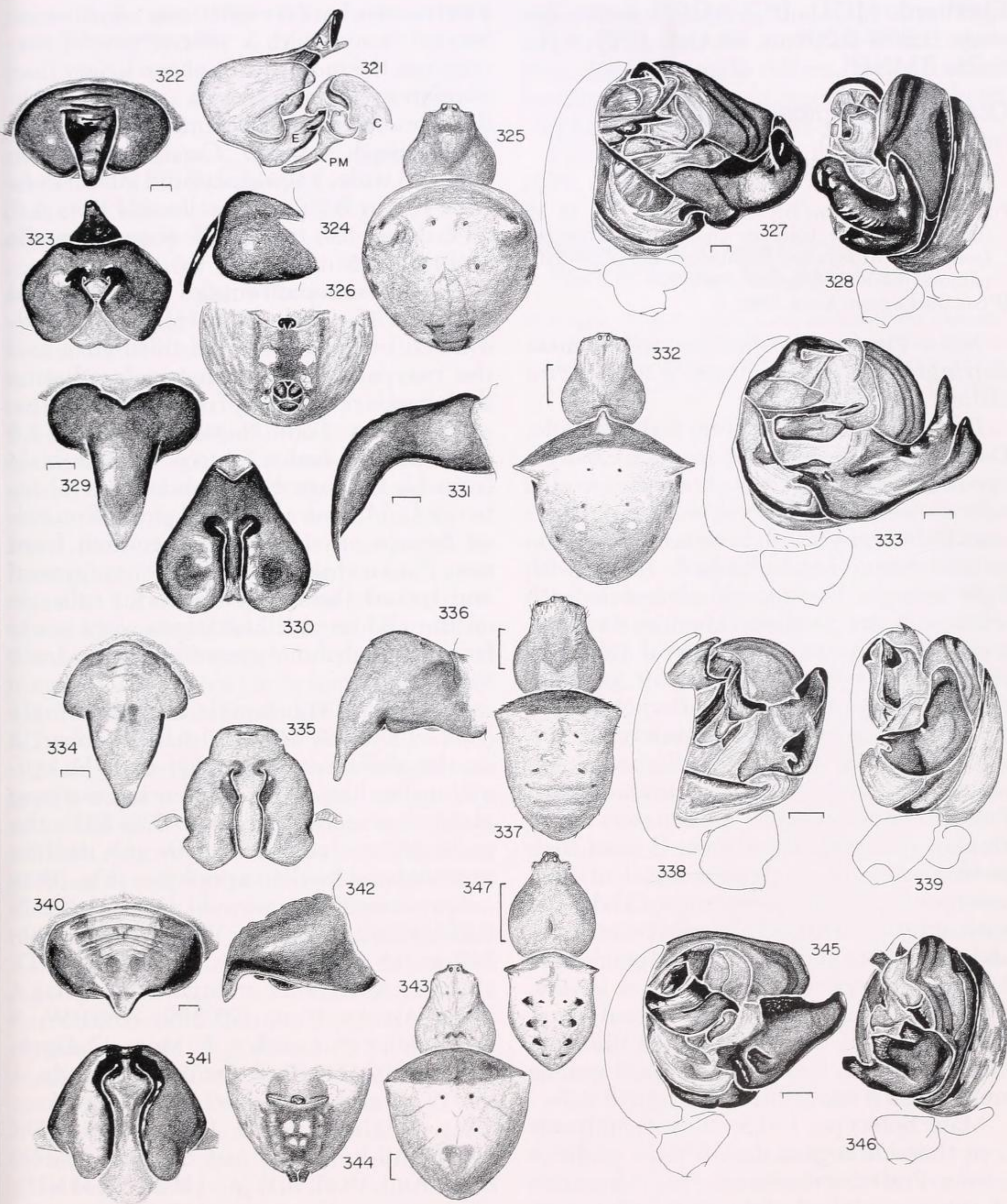
Diagnosis. The epigynum of *O. tinajillas* (Figs. 322–324) has a longer scape than that of *O. cuy* (Fig. 310) and *O. abiseo* (Fig. 317). The male has differently shaped tegulum and terminal apophysis (Figs. 327, 328) from those of *O. abiseo* (Figs. 319, 321).

Specimens Examined. COLOMBIA *Valle*: Arriba de Saladito, 1973, ♂ (W.

Figure 321. *Ocrepeira abiseo* n. sp., male palpus; embolus (E), terminal apophysis (A), conductor (C), and paramedian apophysis (PM).

Figures 322–328. *O. tinajillas* n. sp. 322–326, female. 322–324, epigynum. 322, ventral. 323, posterior. 324, lateral. 325, dorsal. 326, abdomen, ventral. 327, 328, left male palpus.

Figures 329–333. *O. darlingtoni* (Bryant). 329–332, female. 329–331, epigynum. 329, ventral. 330, posterior. 331, lateral. 332, dorsal. 333, male palpus.



Figures 334–339. *O. magdalena* n. sp. 334–337, female. 334–336, epigynum. 334, ventral. 335, posterior. 336, lateral. 337, dorsal. 338, 339, male palpus.

Figures 340–344. *O. lapeza* n. sp., female. 340–342, epigynum. 340, ventral. 341, posterior. 342, lateral. 343, dorsal. 344, abdomen, ventral.

Figures 345–347. *O. aragua* n. sp., male. 345, 346, palpus. 347, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

Eberhard, MCZ). ECUADOR *Loja*: Zamora, 1,800–2,200 m, 28 Oct. 1977, ♀ (L. Peña, AMNH).

Ocrepeira darlingtoni (Bryant),
new combination

Figures 329–333; Map 6

Parawixia darlingtoni Bryant, 1945: 382, figs. 14, 16 (not 21), ♂. Male holotype (not female allotype) from Villa Altagracia, Dominican Republic, Hispaniola, in MCZ. Brignoli, 1983: 278.

Wixia darlingtoni Levi, 1992: 8.

Note. The female allotype of *Parawixia darlingtoni* is the holotype of *Aculepeira visite* Levi, 1991a: 307.

Description. Female from Valle de Polo, Dominican Republic. Carapace orange, eye region darkest. Chelicerae orange, distally darker. Labium, endites orange. Sternum light orange with brown border. Coxae light orange; legs indistinctly ringed with light orange. Dorsum of abdomen with white anterior median tubercle, dark anterior to a line between lateral tubercles (Fig. 332); venter with a pair of light patches separated by their diameter. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with anterior median tubercle [posterior of abdomen damaged] (Fig. 332). Total length 6.5 mm. Carapace 2.7 mm long, 2.1 wide, 1.4 wide behind posterior lateral eyes. First femur 2.7 mm, patella and tibia 3.5, metatarsus 2.1, tarsus 0.9. Second patella and tibia 3.2 mm, third 1.8, fourth 2.7.

Male holotype. Color as in female except thoracic region darker than cephalic region. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to slightly less than 1 diameter of anterior median eyes. Fourth coxa with one macroseta.

Fourth trochanter with one macroseta. Second femur with a ventral row of macrosetae; the most proximal one longer than diameter of femur and on a tubercle. Abdomen without anterior median tubercle. Total length 4.4 mm. Carapace 2.2 mm long, 1.8 wide, 1.0 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.1, metatarsus 1.9, tarsus 0.9. Second patella and tibia 2.5 mm, third 1.5, fourth 2.1.

Note. Males and females were collected together. The male from Haiti had an additional macroseta on the third coxa and the carapace had symmetrical radiating dark bands originating from thoracic area.

Variation. Total length of females 4.6 to 6.5 mm, of males 4.4 to 4.5. The female from La Ciénaga had rounded lateral tubercles and some additional pairs of rounded humps on sides. The specimen from near Banano had a more slender epigynum and lacked the median anterior tubercle on the abdomen. Illustrations were made from the male holotype and a female from Valle de Polo.

Diagnosis. The female is contrastingly colored with an anterior median tubercle on the abdomen (Fig. 332) and the epigynum, unlike other species, has a strong glossy, curved scape (Figs. 329–331); the male differs from others by the distinct terminal and median apophyses (Fig. 333).

Specimens Examined. DOMINICAN REPUBLIC *Barahona*: Valle de Polo, 700–850 m, 18 Aug. 1935, ♀, 2♂, imm. (W. G. Hassler, AMNH). *La Vega*: La Ciénaga, along Arroyo Frío, 19°04'N, 70°51'W, 8 Jan. 1986, ♀ (S. Larcher, F. Mora, C. Domínguez, USNM). *Pedernales*: La Aguita, 1 km W antes de Cruce del Banana, 14 Aug. 1991 (K. Guerrero, D. Matusik, MNSD). HAITI 40 km from Aux Cayes, 600–900 m, 29 Aug. 1935, ♂ (W. G. Hassler, AMNH).

Ocrepeira magdalena new species
Figures 334–339; Map 6

Holotype. Female holotype from San Pedro, 1,200 m, Sierra Nevada de Santa Marta, Depto. Magdalena, Colombia, 16 May 1975 (J. A. Kochalka),

in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace yellowish, darker on cephalic area and sides of thorax, cephalic region with white setae. Chelicerae yellowish, distally darker. Labium, endites dusky. Sternum orange. Coxae yellow; legs yellow with dark rings. Dorsum of abdomen black anteriorly, posterior light with indistinct transverse bars (Fig. 337); sides dark dusky; venter light dusky. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes 1.3 diameters apart. Posterior median eyes 1.4 diameters apart. Laterals separated by about 0.4 diameter. Ocular quadrangle, wider than long, wider behind than in front. Posterior median eyes on swelling facing anterolaterally. Height of clypeus equal to 1.3 diameters of anterior median eyes. Abdomen shield-shaped (Fig. 337). Total length 5.7 mm. Carapace 3.0 mm long, 2.5 wide, 1.6 wide behind lateral eyes 1.6. First legs lost. Second patella and tibia 3.2 mm, third 2.0, fourth 3.0.

Male paratype. Color as in female except carapace darker orange, with white setae and scales in cephalic region, and legs without rings but distally darker. Posterior median eyes 0.8 diameter of anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.7. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.5 diameters apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae without macroseta. Abdomen as in female. Total length 3.4 mm. Carapace 2.0 mm long, 1.5 wide, 0.8 wide behind lateral eyes 0.8 wide. First femur 2.9 mm, patella and tibia 3.1, metatarsus 1.7, tarsus 0.6. Second patella and tibia 2.6 mm, third 0.3, fourth 1.7.

Note. Males and females were matched because they came from the same locality and have similarly shaped abdomens.

Diagnosis. The female differs from that of *O. darlingtoni* (Figs. 329–331) by hav-

ing a wider scape of the epigynum (Fig. 334) with a sharper curve in lateral view (Fig. 336), the male differs from all other species by having a median apophysis "higher" than long (Figs. 338, 339).

Paratype. From type locality, 19 May 1975, ♂ (J. A. Kochalka, MCZ).

Ocrepeira lapeza new species

Plate 1; Figures 340–344; Map 6

Holotype. Female holotype from Hacienda Mozambique, 500 m, 15 km SW of Puerto Lopez, Depto. Meta, Colombia (W. Eberhard, 1491), in MCZ. The specific name is an arbitrary combination of letters.

Description. Female holotype. Carapace orange, dusky between median and lateral eyes, and with paired dusky spots. Chelicerae, labium, endites orange. Sternum dark orange with three pairs of lighter patches. Coxae orange with dusky patches; legs orange, only fourth with dark rings. Dorsum of abdomen black anteriorly with a median brown mark posteriorly (Fig. 343); venter black with two pairs of white spots and a white patch on each side of booklungs (Fig. 344). Posterior median eyes same diameter as anterior medians, laterals 0.9 diameter. Anterior median eyes their diameter apart, 2.5 diameters from laterals. Posterior median eyes their diameter apart, 4 diameters from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 343. Total length 9.0 mm. Carapace 4.1 mm long, 3.0 wide, 1.8 wide behind lateral eyes. First femur 4.2 mm, patella and tibia 5.2, metatarsus 3.1, tarsus 1.2. Second patella and tibia 4.5 mm, third 2.7, fourth 4.6.

Note. The abdomen of the holotype is damaged and separate from the cephalothorax. The carapace has the spots (Fig. 343), and the sternum the pattern of a *Parawixia* species (Levi, 1992, fig. 6). The parts probably belong together.

Diagnosis. The female differs from others by having a minute scape and two dark spots in ventral view (Fig. 340).

Natural History. Plate 1 illustrates the orb web of *O. lapeza*.

***Ocrepeira aragua* new species**
Figures 345–347; Map 6

Holotype. Male holotype from Rancho Grande, near Maracay, Est. Aragua, Venezuela, 14–31 Mar. 1946, in AMNH. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace orange, sides of thoracic region darker. Chelicerae, labium, endites orange. Sternum light orange. Legs orange. Dorsum of abdomen with paired black spots forming outline of a folium (Fig. 347). Posterior median eyes 0.8 diameter of anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.8. Anterior median eyes 0.9 diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen with distinct lateral tubercles (Fig. 347). Total length 3.2 mm. Carapace 1.9 mm long, 1.6 wide, 0.9 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.5, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.1 mm, third 1.1, fourth 1.8.

Diagnosis. The male differs from others in the projection on the “lower” edge of the widest area of the median apophysis (Figs. 345, 346).

***Ocrepeira maraca* new species**
Figures 348–353; Map 6

Holotype. Female holotype from Estação Ecológica de Maracá, Ilha de Maracá, Rio Uraricoera, Roraima Territ., Brazil, 25 July 1987 (L. P. Albu-

querque), in MCN no. 19282. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, cephalic region darkest. Chelicerae, labium, endites orange. Sternum orange. Coxae orange; legs orange. Dorsum of abdomen white, anterior black (Fig. 351); venter light dusky. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes 0.8 diameter apart. Posterior median eyes 0.8 diameter apart on only slight swelling. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.6 diameter of anterior median eye. Abdomen shield-shaped (Fig. 351). Total length 7.0 mm. Carapace 3.1 mm long, 2.5 wide, 1.5 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 4.0, metatarsus 2.5, tarsus 1.0. Second patella and tibia 3.7 mm, third 2.0, fourth 3.1.

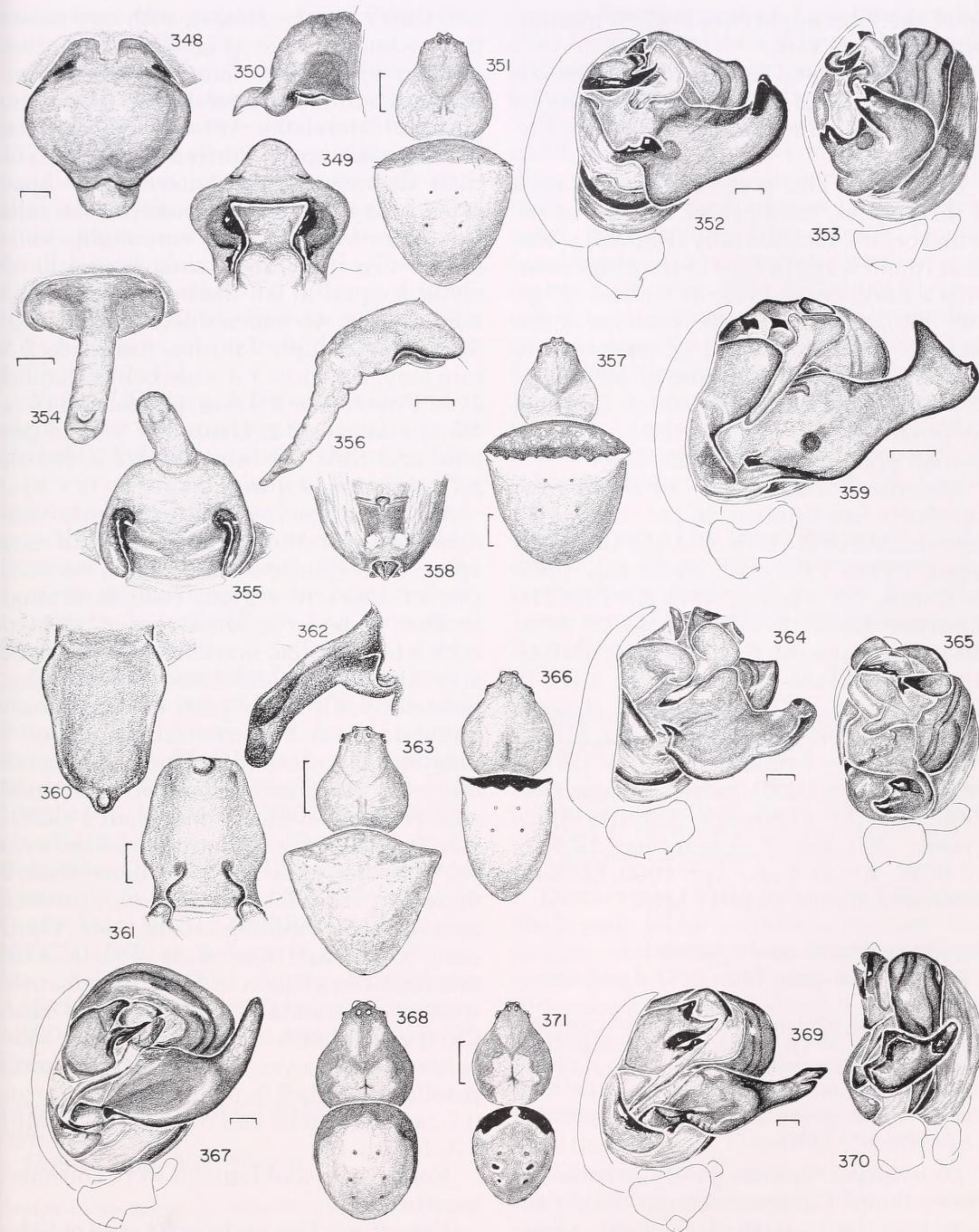
Male paratype from type locality. Color lighter than in female. Dorsum of abdomen framed by black, sides black grading ventrally into dusky venter. Posterior median eyes 0.9 diameter of anterior medians, anterior laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.1 diameters apart and each on a swelling. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Third, fourth coxae each with one long macroseta. Fourth trochanter with one macroseta. Total length 4.7 mm. Carapace 2.5 mm long, 1.9 wide, 0.9 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.2, metatarsus 1.7, tarsus 0.8. Second patella and tibia 2.6 mm, third 1.5, fourth 2.1.

Note. Males and females were collected together. The epigynum appears as if the

Figures 348–353. *Ocrepeira maraca* n. sp. 348–351, female. 348–350, epigynum. 348, ventral. 349, posterior. 350, lateral. 351, dorsal. 352, 353, left male palpus.

Figures 354–359. *O. yaelae* n. sp. 354–358, female. 354–356, epigynum. 354, ventral. 355, posterior. 356, lateral. 357, dorsal. 358, abdomen, ventral. 359, male palpus.

Figures 360–363. *O. duocypha* (Chamberlin), female. 360–362, epigynum. 360, ventral. 361, posterior. 362, lateral. 363, dorsal.



Figures 364–366. *O. jacara* n. sp., male. 364, 365, palpus. 366, dorsal.

Figures 367, 368. *O. comaina* n. sp., male. 367, palpus. 368, dorsal.

Figures 369–371. *O. heredia* n. sp., male. 369, 370, palpus. 371, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

tip of the lobe might break when mating, but none were torn.

Variation. Total length of females 5.8 to 9.0 mm, of males 3.9 to 4.7. Illustrations were made from specimens from Terr. Roraima.

Diagnosis. The posterior median eyes of this species, unlike those of most *Ocrepeira* species, face dorsally (Fig. 351). The short round scape or lobe of the epigynum, with a dark, curved line at its base (Figs. 348, 350), and the "deep" position of the posterior median plate (Fig. 349) readily separate females from those of other species. The male has only a small terminal apophysis and two teeth at the base of the median apophysis (Figs. 352, 353).

Specimens Examined. VENEZUELA *Carabobo*: San Esteban, 26 Jan. 1940, ♂ (P. Andruze, AMNH). COLOMBIA *César*: La Jagua, 15 km S Becerril, 20–21 July 1968, 2♀, 2 imm. (B. Malkin, AMNH). BRAZIL *Roraima*: Estac. Ecol. Maracá, 29. Mar. 1987, ♂ paratype (M. E. L. de Souza, INPA). *Amazonas*: Maués, 1 Aug. 1983, ♀ (L. P. Albuquerque, INPA); Manaus, Reserva Ducke, Aug. 1971, ♀ (M. E. Galiano, MEG). *Pará*: Fazenda Velha, Belém, July 1970, ♀ (M. E. Galiano, MEG); Jacaré-Acanga, Dec. 1968, 3♀, ♂ (M. Alvarenga, AMNH). *Mato Grosso*: 260 km N Xavantina, 12°49'S, 51°46'W, 400 m, Feb.–Apr. 1969, 2♂ (Xavantina-Cachimbo Exped., MCZ).

Ocrepeira yaelae new species

Figures 354–359; Map 6

Holotype. Male holotype and female paratype from Río Palenque, 47 km SW of Santo Domingo de los Colorados, road to Quevedo, 150 m, Pichincha Prov., Ecuador, 14 Mar. 1982 (Y. D. Lubin, YDL-378), in MCZ. The species is named after collector and colleague Yael Lubin.

Description. Female paratype from Via Puerto Quito. Carapace orange, darker anteriorly; clypeus with dark dusky transverse band. Chelicerae, labium, endites dusky orange. Sternum dusky orange. Coxae, legs dusky orange. Dorsum of abdomen white, anterior black (Fig. 357); sides black, sharply bordered toward dorsum, grading

into dusky venter. Venter with two indistinct white patches (Fig. 358). Posterior median eyes same diameter as anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.6. Anterior median eyes 0.8 diameter apart. Posterior median eyes their diameter apart. Lateral eyes separated by 0.4 diameter of posterior laterals. Posterior median eyes on very slight swelling. Ocular quadrangle square. Height of clypeus equal to 0.6 diameter of anterior median eyes. Abdomen shield-shaped (Fig. 357). Total length 7.0 mm. Carapace 2.8 mm long, 2.4 wide, 1.4 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.5, metatarsus 2.2, tarsus 0.9. Second patella and tibia 3.4 mm, third 1.9, fourth 2.7. Abdomen 4.9 mm long.

Male paratype from Pedro Vicente Maldonado. Coloration as in female but carapace with elongate dusky patch on each side of thoracic region, reddish around swollen posterior median eyes. Abdomen with white cardiac mark in center of dark area anterior to and between tubercles, posteriorly with four pairs of streaks outlining a folium. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart, slightly more than 1 diameter from laterals. Posterior median eyes 0.8 diameter apart, slightly more than 2 diameters from laterals. Posterior median eyes on slight swelling facing sides. Third coxa with small macroseta, fourth with macroseta on a tubercle. Fourth trochanter without macroseta. Total length 3.9 mm. Carapace 2.0 mm long, 1.5 wide, 0.8 wide behind lateral eyes. First femur 2.2 mm, patella and tibia 2.5, metatarsus 1.5, tarsus 0.7. Second patella and tibia 2.1 mm, third 1.3, fourth 1.8.

Note. Males and females were collected together.

Variation. The male holotype, not the paratype described, has a macroseta on the fourth trochanter. Total length of females 4.8 to 7.0 mm, of males 3.6 to 3.9. Figures 354–358 were prepared from the paratype from Via Puerto Quito, Figure 359 was

made from the paratype from Pedro Vicente Maldonado.

Diagnosis. The female differs from many *Ocrepeira* females by having the posterior median eyes face dorsally (Fig. 357), and from all by the weakly sclerotized epigynum having a scape with parallel sides (Fig. 354) and having a very wide posterior median plate framed by small lateral plates (Fig. 355). The male differs from all others by the very distinctive shape of the median apophysis, with a dark round spot on its widest area (Fig. 359).

Natural History. A female was found at night in an asymmetrical vertical orb, 20 cm below hub, 10 cm above; the male holotype was on the periphery of the web. The habitat was dense, old, very wet second-growth rain forest understory (Y. Lubin, personal communication). Female paratypes from Tinalandia were hand-collected, the male was collected as a result of beating vegetation.

Specimens Examined. ECUADOR *Pichincha*: 4 km NE of Pedro Vicente Maldonado, km 113 on road from Quito to Puerto Quito, ENDESA Compartemento Madereiro, 0°05'N, 79°07'W, 9–12 July, 1988, ♂ (W. Maddison, MCZ 88-014); Tinalandia, 12 km E Santo Domingo de los Colorados, 750 m, 11–17 May 1986, ♀, ♂, 5 imm. (G. B. Edwards, FSCA); Via Puerto Quito, km 113, 31 Oct. 1984, ♀ (L. Avilés, MECN). *Bolívar*: Balzapampa, 700–900 m, May 1938, ♀ (W. Clarke-Macintyre, AMNH). *Loja*: betw. Celica and Alamor, 1,100–2,200 m, 16–17 Aug. 1977, ♀ (L. Peña, AMNH).

Ocrepeira duocypha (Chamberlin),
new combination

Figures 360–363; Map 6

Araneus duocyphus Chamberlin, 1916: 256, pl. 18, figs. 8–10, ♀. Female holotype from Huadquina, 5,000 ft [1,500 m], Depto. Cuzco, Peru, in MCZ, examined. Bonnet, 1955: 469.

Aranea duocypha:—Roewer, 1942: 841.

Description. Female holotype. Carapace orange. Chelicerae, labium, endites

orange. Sternum orange. Legs orange with faint longitudinal darker lines. Dorsum of abdomen orange-white, anterior to a line between tubercles are dark stipples (Fig. 363); venter light, without marks. Eyes small, subequal. Anterior median eyes 1.8 diameters apart, 1.8 diameters from laterals. Posterior median eyes 1.7 diameters apart, 2.1 diameters from laterals. Ocular quadrangle square, posterior median eyes on swellings (Fig. 363). Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with pointed tubercles (Fig. 363). Total length 4.3 mm. Carapace 2.0 mm long, 1.7 wide, 0.9 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.8, metatarsus 1.5, tarsus 0.6. Second patella and tibia 2.7 mm, third 1.4, fourth 1.9.

Diagnosis. The large flat scape of the epigynum (Figs. 360–362) separates this species from all other *Ocrepeira*. The epigynum resembles that of *Alpaida banos* Levi from Ecuador.

Ocrepeira jacara new species
Figures 364–366; Map 6

Holotype. Male holotype from Fazenda Jacaranda, Itamarajú, Bahia State, Brazil, 9 Dec. 1977 (J. S. Santos), in MCN no. 11122. The specific name is an arbitrary combination of letters.

Description. Male holotype. Carapace, chelicerae, labium, endites, sternum, legs orange. Abdomen, white dorsally with anterior black (Fig. 366), venter gray. Posterior median eyes 0.5 diameter of anterior medians, laterals 0.4 diameter. Anterior median eyes 0.6 diameter apart. Posterior median eyes their diameter apart and on swelling. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.6 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Abdomen shield-shaped (Fig. 366). Total length 3.8 mm. Carapace 2.4 mm long, 1.8 wide, 0.9 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 2.9, metatarsus 1.9, tarsus 0.6. Second patella

and tibia 2.5 mm, third 1.5, fourth 2.0. Abdomen 2.1 mm long.

Note. The male is in poor condition, the palpi are transparent as if the specimen had once been dry.

Variation. Total length of males 3.8 to 4.4. Figures were made from the holotype, and soft parts may be slightly deformed because of its poor condition.

Diagnosis. As is the case for *O. yaelae* (Fig. 359), the radix of the palpus has a large sclerotized lobe (Fig. 364). The shape of the median apophysis and the presence of a tooth on its base (Figs. 364, 365) distinguish the species from *O. yaelae* (Fig. 359).

Specimen Examined. BRAZIL São Paulo: Estrada Santa Amaro, Engo. Marcilac, km 48, 15 Jan. 1961, ♂ (F. Werner, MZSP 7964).

Ocrepeira comaina new species

Figures 367, 368; Map 6

Holotype. Male holotype and male paratype from Alto Río Comaina, 04°27'S, 78°13'W, Puesto de Vigilancia 22, "Falso Paquisha," 850–1,150 m, Depto. Amazonas, Peru, 21 Oct.–3 Nov. 1987 (D. Silva D.), in MUSM. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Cephalic region with dusky marks on light orange; sides of carapace with dusky marks. Sternum light orange, legs light orange with indistinct darker rings. Abdomen white dorsally, sides black (Fig. 368); venter light dusky. Posterior median eyes 0.7 diameter of anterior medians, anterior laterals 0.5 diameter, posterior laterals 0.5. Anterior median eyes 0.7 diameter apart, 0.3 diameter from laterals. Posterior median eyes 0.8 diameter apart, 1.6 diameters from laterals. Posterior median eyes not on swelling, facing dorsally. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Abdomen oval without humps (Fig. 368). Total length 4.2 mm. Carapace 2.2 mm long, 1.9 wide, 0.8 wide behind

lateral eyes. First femur 2.2 mm, patella and tibia 2.7, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.4 mm, third 1.4, fourth 2.0.

Diagnosis. The terminal apophysis, unlike that of *O. albopunctata* (Fig. 377) is a small, simple thorn (Fig. 367). The base of the median apophysis (Fig. 367) lacks the sculpturing present in *O. herrera* (Fig. 391) and *O. covillei* (Fig. 402).

Ocrepeira heredia new species

Figures 369–371; Map 6

Holotype. Male holotype from 1 km N of Montaña Azul, 1,500 m, cloud forest, Heredia Prov., Costa Rica, 7–8 May 1987 (D. Ubick), in CAS. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace yellowish, cephalic region and sides of thoracic region darker. Chelicerae yellowish, proximally dusky. Labium, endites, sternum yellowish. Legs yellowish with indistinct darker rings. Anterior of dorsum of abdomen black, divided by a white cardiac mark; posterior white with paired dark spots having light rings (Fig. 371); venter dusky with a pair of white patches. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.5 diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle narrower behind than in front. Posterior median eyes on slight swelling. Height of clypeus equal to 0.3 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta on left side only. Abdomen without distinct humps (Fig. 371). Total length 4.8 mm. Carapace 2.5 mm long, 2.1 wide, 1.0 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 3.7, metatarsus 2.5, tarsus 1.0. Second patella and tibia 3.0 mm, third 1.8, fourth 2.7.

Diagnosis. *Ocrepeira heredia* male differs from the male *O. comaina* (Fig. 367), *O. herrera* (Fig. 391), and *O. covillei* (Fig. 402), which also lack distinct humps on the abdomen, by the shape of the median

apophysis, whose prong has two tips with a notch in between (Figs. 369, 370).

Ocrepeira albopunctata (Taczanowski),
new combination

Figures 372–379; Map 6

Tricantha albopunctata Taczanowski, 1879: 123, pl. 2, fig. 36, ♂. Male holotype and 2 imm. paratypes from Amable María, Depto. Junín, Peru, in PAN, examined.

Araneus albopunctatus:—Simon, 1895: 817. Bonnet, 1955: 426.

Aranea albopunctata:—Roewer, 1942: 837.

Singa essequibensis:—Mello-Leitão, 1948: 17. Probably erroneous determination.

Araneus trigonellus di Caporiacco, 1954: 107, fig. 26, ♀. Female holotype from Charvein, French Guiana, in MZUF, examined. Brignoli, 1983: 263. NEW SYNONYMY.

Synonymy. *Tricantha* Simon, the original genus of *albopunctata* is a theridiid with the type species *T. tricornis* Simon, 1864, and a subjective synonym of *Phoroncidia* (Levi and Levi, 1962). A specimen in the British Museum, collected by Hingston, labeled *Singa essequibensis* (Hingston) by Mello-Leitão, is *O. albopunctata*. But Hingston's (1932) description of *Epeira essequibensis* from Essequibo River, Guyana, with the type lost, is unrecognizable: "greyish-brown with distinct black spot in center of dorsum and two sinuous brown lines that start at the shoulders and converge toward the apex which they almost reach, ventral surface greyish-brown with a short median white longitudinal band. Total length 7 mm." The light median area of the venter of the abdomen suggests that it may have been a *Eustala*. The *Araneus trigonellus* holotype is a female in poor condition and has a relatively narrow cephalic region (examined in 1973). One opening of its epigynum is covered by a scale from the male palpus.

Description. Female from Pasco, Peru. Carapace orange. Chelicerae, labium, endites orange. Sternum orange. Coxae, legs orange. Dorsum of abdomen with anterior black, posterior white (Fig. 376); sides of venter black, sharply bordered toward

dorsum, white but ventrally grading into gray and black. Posterior median eyes same diameter as anterior medians, anterior laterals 0.9 diameter, posterior laterals 0.8. Anterior median eyes 1.1 diameters apart. Posterior median eyes 1.1 diameters apart. Posterior median eyes on very slight swelling facing anterolaterally (Fig. 376). Ocular quadrangle slightly longer than wide. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen shield-shaped (Fig. 376). Total length 7.5 mm. Carapace 3.9 mm long, 3.0 wide, 1.8 wide behind posterior median eyes. First femur 3.7 mm, patella and tibia 4.5, metatarsus 3.1, tarsus 1.3. Second patella and tibia 4.4 mm, third 2.4, fourth 3.4.

Male holotype of *T. albopunctata*. Coloration as in female. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, slightly more than 2 diameters from laterals. Posterior median eyes 1.2 diameters apart, 3 diameters from laterals. Posterior median eyes on slight swelling facing sideways. Third coxa with small macroseta, fourth with strong macroseta. Total length 4.2 mm. Carapace 2.6 mm long, 1.9 wide. First femur 2.7 mm, patella and tibia 3.0, metatarsus 1.8, tarsus 0.9. Second patella and tibia 2.3 mm, third 1.4, fourth 2.0.

Note. Males and females were collected in the same area in Mato Grosso, Brazil. Virgin males have the large scale in the palpus attached to the base of the embolus (Fig. 379), which is found in the epigynum of mated females (Fig. 373).

Variation. Taczanowski (1879, pl. 2, fig. 36) illustrates the abdomen; it is handcolored green. The radix of the male palpus has a large projection that supports the scale at the base of the embolus (Fig. 379). The scale is absent in mated males (Fig. 377). Some males lack the macroseta on coxae and trochanters entirely. Others have them on the fourth trochanter and coxa, the one on the coxa being on a tubercle. The conductor is much smaller and the paramedian apophysis wider in some in-

dividuals than in the specimen illustrated (Fig. 377) which, except for the scale, is similar to the holotype. Total length of females 7.0 to 10.0 mm, of males 3.0 to 4.7. The holotype of *T. albopunctata* is a virgin male. Illustrations (Figs. 372–374, 376) were made from specimens from Depto. Pasco, Peru; Figure 375 was made from a female from Mato Grosso State, Brazil, Figure 377 from Mato Grosso, Figure 378 from Depto. Madre de Dios, Peru, and Figure 379 from a male from Amazonas State, Brazil.

Diagnosis. The female is separated from *O. viejo* (Fig. 380) by the anterior attachment of the scape on the base of the epigynum (Figs. 372, 375). The male differs from *O. viejo* (Figs. 385, 386) by the shape of the terminal apophysis and the distal tip of the median apophysis, which is wide and has two points (Figs. 377, 378).

Natural History. Two males from Mato Grosso, Brazil, were collected, one in a gallery forest, the other in campo-grassland. The female from Juanjui, Peru, was collected at night.

Specimens Examined. GUYANA Moraballi Riv., Essequibo Riv., 15 mi. above Bartica, ♀ (R. W. G. Hingston, BMNH); “[?] Brazil, Kartabo” (Kartabu Point, Mazaruni-Potaro Prov.), 06°23’N, 58°41’W, Apr. 1924, ♀ (W. Beebe, AMNH). PERU *San Martín*: Juanjui, 350 m, 16–24 Aug. 1978, ♀ (D. Silva D., MUSM). *Huánuco*: Monzon Valley, Tingo María, 20 Nov. 1954, ♀ (E. I. Schlinger, E. S. Ross, CAS). *Pasco*: Quebrada Chispa, NW Iscozacín,

345 m, Huancabamba, 10°10’S, 75°15’W, 29 Oct. 1986, 2♀ (D. Silva D., MUSM). *Cuzco*: Paltaybamba [Paltaypampa], 2 imm. paratypes (K. Jelski, J. Sztolcman, PAN). *Madre de Dios*: Iberia, 30 Apr. 1947, ♂ (J. C. Pallister, AMNH). BRAZIL *Amazonas*: Manaus, Reserva Ducke, Aug. 1971, ♂ (M. E. Galiano, MEG). *Rondônia*: Madeira-Mamoré, railway camp, 1911, ♀ (W. M. Mann, MCZ); Fazenda Rancho Grande, NE Caculandia, Dec. 1990, ♂ (G. B. Edwards, FSCA). *Mato Grosso*: 260 km N Xavantina, 12°39’S, 51°46’W, 400 m, Feb.–Apr. 1969, 2♂ (Xavant.-Cachimbo Exped., MCZ); Barra dos Bugres, Nov. 1938, ♀, ♂ (A. Cerrutti, MNRJ).

Ocrepeira viejo new species Figures 380–386; Map 6

Holotype. Female holotype and male paratype from La Selva, 4 km SE of Puerto Viejo, Heredia Prov., Costa Rica, from wasp trap nest, 20 Sept. 1981 (R. E. Coville, ARØ7), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace, chelicerae, labium, endites, sternum, coxae, legs orange. Dorsum of abdomen white framed by black (Fig. 384); black sides fading ventrally into colorless venter. Posterior median eyes same diameter as anterior medians, anterior laterals 0.7 diameter, posterior 0.8. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen shield-shaped (Fig. 384). Total length 5.0

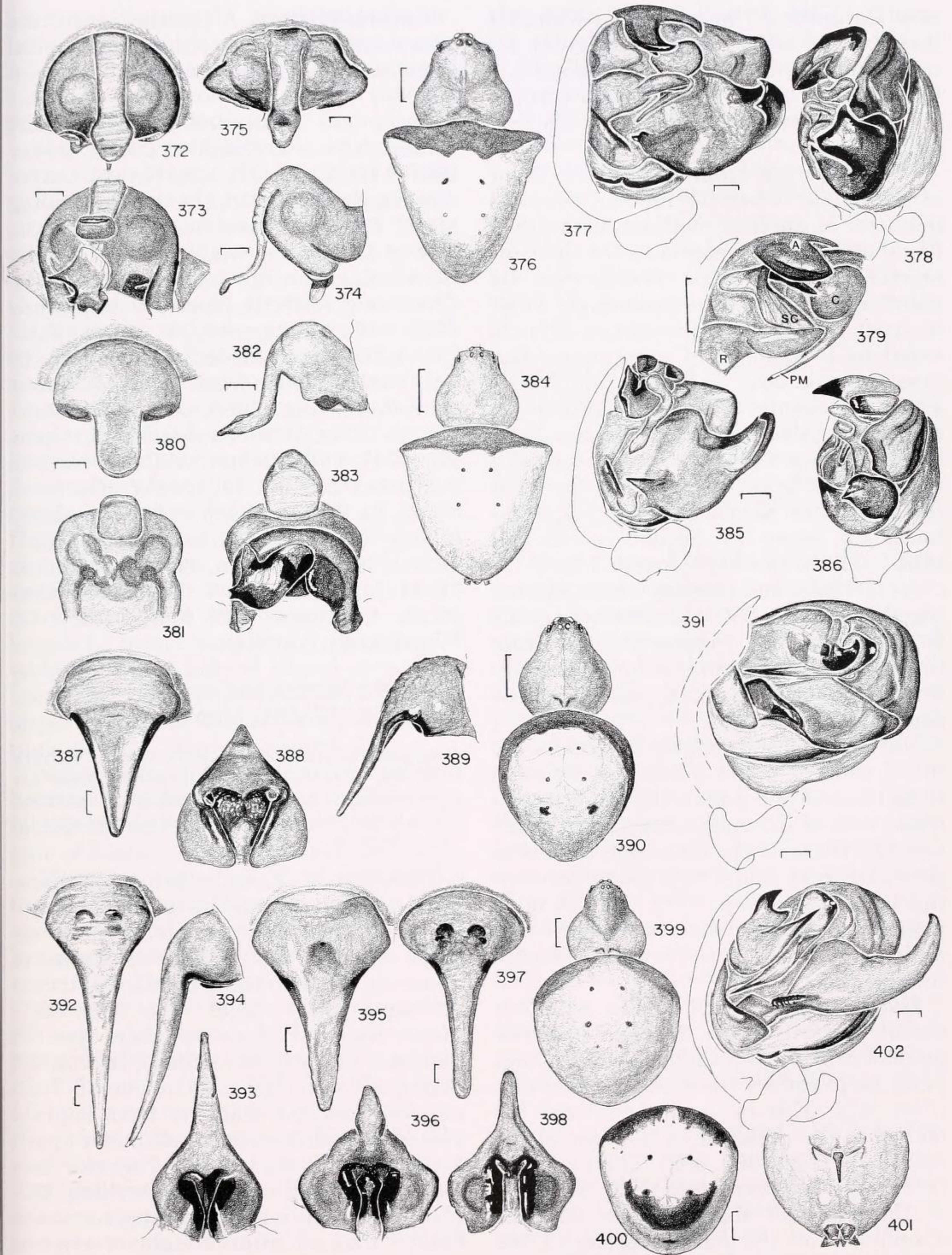
Figures 372–379. *Ocrepeira albopunctata* (Taczanowski). 372–376, female. 372–375, epigynum. 372, 375, ventral. 373, posterior. 374, lateral. 376, dorsal. 377–379, male. 377, 378, left male palpus. 379, embolus, terminal apophysis (A), conductor (C), radix (R), paramedian apophysis (PM), and scale to be transferred to epigynum (SC).

Figures 380–386. *O. viejo* n. sp. 380–383, female. 380–382, epigynum. 380, ventral. 381, 383, posterior. 382, lateral. 383, with scale from male palpus. 384, dorsal. 385, 386, male palpus.

Figures 387–391. *O. herrera* n. sp. 387–390, female. 387–389, epigynum. 387, ventral. 388, posterior. 389, lateral. 390, dorsal. 391, male palpus.

Figures 392–402. *O. covillei* n. sp. 392–401, female. 392–398, epigynum. 392, 395, 397, ventral. 393, 396, 398, posterior. 399, dorsal. 400, abdomen, dorsal. 401, abdomen, ventral. 402, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.



mm. Carapace 2.7 mm long, 2.1 wide, 1.4 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.4, metatarsus 2.2, tarsus 0.9. Second patella and tibia 3.2 mm, third 1.9, fourth 2.7. Abdomen 3.8 mm long.

Male paratype from Costa Rica. Color as in female. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.1 diameters apart. Ocular quadrangle wider in front than behind. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta on right only. Abdomen as in female. Total length 3.9 mm. Carapace 2.1 mm long, 1.4 wide, 0.8 wide behind lateral eyes. First femur 2.2 mm, patella and tibia 2.5, metatarsus 1.5, tarsus 0.7. Second patella and tibia 2.0 mm, third 0.5, fourth 1.5.

Note. Males and females were collected together. Figures 380–382, 384 were made from the holotype, Figures 385, 386 from the male collected with the holotype, Figure 383 was made from a female from near Iquitos, Peru.

Variation. Total length of females 5.0 to 7.7 mm, of males 3.2 to 3.9. Females from Panama and some others have in posterior view of the epigynum a slight transverse lip dorsal to the scape and ventral to the dark areas, and a depression between this lip and the scape (Fig. 383). A male from Panama has no macroseta on the coxae and one small macroseta on each fourth trochanter.

Diagnosis. The species has a relatively narrow cephalic area, but the posterior median eyes are on a slight swelling. *Ocrepeira viejo* differs from *O. albopunctata* (Figs. 372, 374) by having its scape attached to the posterior of the base of the epigynum (Figs. 380, 382). The male differs from *O. albopunctata* (Figs. 377, 378) in the different shape of the terminal apophysis and the narrow prong of the median apophysis which also has a flat conical offset at its base (Figs. 385, 386).

Natural History. A female from Costa Rica came from foliage in a wet tropical forest, another from Panama from a canopy.

Specimens Examined. COSTA RICA *Limón:* 5.5 km E Guápiles, 200 m, 9 May 1987, ♀ (D. Ubick, DU). PANAMA *Colón:* Fort Davis, Aug. 1936, ♂ (A. M. Chickering, MCZ). *Panamá:* Forest Reserve, Aug. 1936, ♀ (A. M. Chickering, MCZ); Barro Colorado Island, Lago Gatún, July 1936, ♀ (A. M. Chickering, AMNH); Pipeline Road, 12 July 1976, ♀ (G. Montgomery, Y. Lubin, JAK). VENEZUELA *Carabobo:* San Esteban, 26 Jan. 1940, ♀ (P. Andruze, AMNH). *Sucre:* Caripito, 15 Aug. 1968, ♀ (J. M. Osorio, FSCA). COLOMBIA *Santander:* Río Opón, Jan. 1947, ♀ (L. Richter, AMNH). *Nariño:* Barbacoas, 20 Mar. 1974, ♂ (W. Eberhard, MCZ); La Planada, 7 km S Chocones, 1,800 m, July 1986, ♂ (W. Eberhard, MCZ). PERU *Loreto:* Explorama Inn, 40 km NE Iquitos, 19–21 July 1989 (H. V. Weems, FSCA). *Junín:* Utcuyacu, 8–26 Feb. 1948, ♀ (F. Woytkowski, AMNH).

Ocrepeira herrera new species Figures 387–391; Map 6

Holotype. Female holotype from Genaro Herrera, 04°55'S, 73°45'W, Río Ucayali, 100 m, Depto. Loreto, Peru, 24 Aug. 1988, (D. Silva D.), in MUSM. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, eye region darkest. Chelicerae, labium, endites orange. Sternum orange. Coxae, legs orange. Dorsum of abdomen white, framed by black and containing a pair of black spots (Fig. 390); venter dusky. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes 0.7 diameter apart, 0.8 diameter from laterals. Posterior median eyes 0.8 diameter apart, 2 diameters from laterals. Posterior median eyes facing up, not on swelling. Ocular quadrangle wider than long, narrower behind than in front. Height of clypeus equal to 0.5 diameter of anterior median eyes. Abdomen oval (Fig. 390). Total length

5.5 mm. Carapace 2.7 mm long, 2.2 wide, 1.0 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.5, metatarsus 2.3, tarsus 1.0. Second patella and tibia 3.1 mm, third 2.0, fourth 2.7.

Male paratype. Coloration as in female but carapace orange with four black streaks radiating anteriorly from thoracic groove, cephalic region and sides of head dusky, sides of thoracic region with dusky patches. Legs with dusky rings on distal articles. Dorsum of abdomen greenish white with black anterior and sides, and two tiny black spots in middle. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes 0.8 diameter apart, 0.5 diameter from laterals. Posterior median eyes their diameter apart, 2 diameters from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.3 diameter of anterior median eyes. Third and fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 4.4 mm. Carapace 2.3 mm long, 1.9 wide, 0.8 wide behind lateral eyes. First femur 2.2 mm, patella and tibia 2.7, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.5 mm, third 1.3, fourth 2.0.

Note. Male and female were matched because both have posterior median eyes facing up and both may have a similar pair of black spots on the oval abdomen.

Variation. Total length of females 5.2 to 6.4 mm. Several females lack the black spots on the abdomen. Illustrations were prepared from the female holotype and a male from Depto. Pasco, Peru.

Diagnosis. The female differs from that of most other species by having the posterior median eyes facing dorsally and an oval abdomen (Fig. 390). It differs from all by the triangular, rugose posterior median plate of the epigynum (Fig. 388). The male has only a lobe as terminal apophysis and, unlike *O. comaina* (Fig. 367), a short median apophysis (Fig. 391).

Specimens Examined. ECUADOR *Napo*: Pompeya, Río Napo, May 1965, ♀ (L. Peña, MCZ). PERU *Loreto*: Iquitos,

May 1920, ♀ (H. S. Parrish, MCZ). *Huánuco*: Huallaga Valley, Feb.–Apr. 1954, ♀ (F. Woytkowski, CAS). *Pasco*: Río Chispa, 345 m, NW of Iscozacín, 30–31 Oct. 1986, ♂ (D. Silva D., MUSM). *Madre de Dios*: Zona Reservada Tambopata, 14 May 1988, ♀, 15 May 1988, ♀ (D. Silva D., MUSM); Zona Reservada Pakitza, 11°58'S, 71°18'W, 6 Oct. 1989, ♀ (J. Coddington, D. Silva D., MUSM); Reservada Cuzco Amazonica, 15 km NE Puerto Maldonado, 12°33'S, 69°03'W, 22 June 1989, ♀ (D. Silva D., MUSM).

Ocrepeira covillei new species Figures 392–402; Map 6

Holotype. Female holotype, two male paratypes from La Selva, 4 km SE Puerto Viejo, Heredia Prov., Costa Rica, 24 June 1980, from wasp nest (R. Coville, AR Ø1), in MCZ. The species is named after the collector.

Description. Female holotype. Carapace orange, cephalic region darker orange. Chelicerae, labium, endites dark orange. Sternum, coxae orange; legs dark orange. Dorsum of abdomen white, black anterolaterally (Fig. 399); venter dusky with a pair of white spots side by side (Fig. 401). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 0.8 diameter apart. Laterals 0.4 diameter apart. Posterior median eyes without swelling, facing dorsally (Fig. 399). Ocular quadrangle square, slightly narrower behind than in front. Abdomen subspherical without humps (Fig. 399). Total length 8.0 mm. Carapace 3.2 mm long, 2.8 wide, 1.4 wide behind posterior median eyes. First femur 3.4 mm, patella and tibia 4.2, metatarsus 2.8, tarsus 1.0. Second patella and tibia 3.9 mm, third 2.4, fourth 3.5.

Male paratype collected with holotype. Color as in female but carapace orange with sides of thoracic region having darker patches. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes 0.7

diameter apart. Ocular quadrangle almost square, slightly narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Sternum with four macrosetae in center. Third and fourth coxae each with one macroseta. Fourth trochanter with one short macroseta. Abdomen oval without humps. Total length 6.4 mm. Carapace 3.1 mm long, 2.5 wide, 1.1 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 2.2, tarsus 0.9. Second patella and tibia 3.0 mm, third 2.0, fourth 2.8.

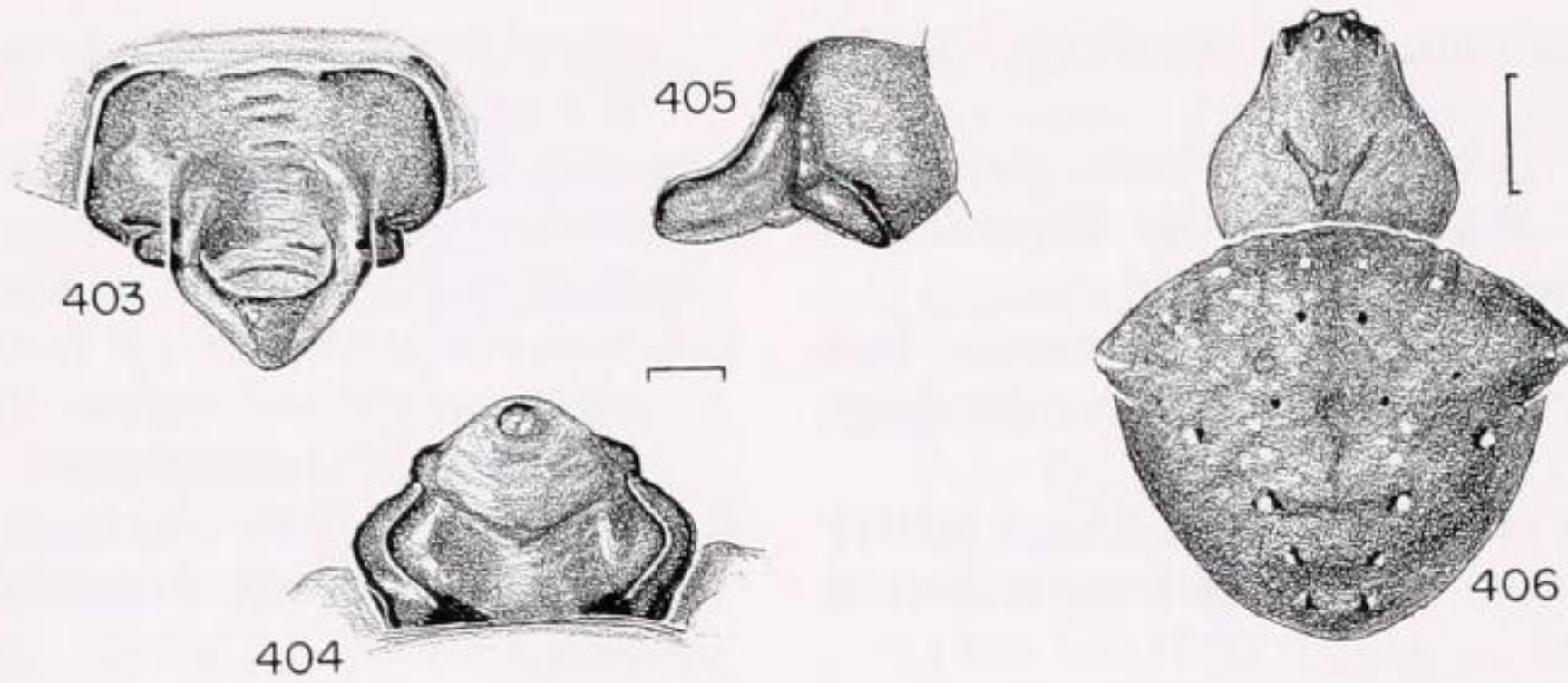
Variation. There is considerable variation and I first considered the specimens listed here to belong to several species. Specimens from Monterrico, Peru, have the ocular quadrangle narrower behind than in the holotype. The length and the width of the scape of the epigynum are variable (Figs. 392–398). One male lacks a macroseta on the third coxa on one side. Some males lack the macrosetae on the sternum. Total length of females 6.2 to 9.0 mm, of males 4.4 to 6.4. The illustrations (Figs. 392–394, 399, 401) were made from the holotype, Figures 395, 396 from a female from the Depto. Junín, Peru, Figures 397, 398 from Depto. Loreto, Peru, Figure 400 was made from a female from Amazonas State, Brazil, and Figure 402 from a male collected with the holotype.

Diagnosis. This species, unlike most, has a spherical abdomen, and the posterior median eyes face dorsally (Fig. 399). Females differ from other species by the shape of the scape and the narrow posterior median plate of the epigynum (Figs. 392–398) and from males by the shape of the terminal apophysis and the pointed tip of the median apophysis prong (Fig. 402).

Natural History. Most specimens were collected from wasp nests or wasp traps and others came from a rain forest.

Paratypes. COSTA RICA *Heredia:* La Selva nr. Puerto Viejo, Feb. 1981, ♂, Feb. 1986, ♂, June 1982, ♀ (W. Eberhard, TL32–1, MCZ), 20 June 1980, ♀, ♂ (R. Coville AR Ø5, MCZ); Feb. 1960, ♀ (W. Eberhard, 3235, MCZ).

Specimens Examined. TRINIDAD *St. George:* Simla, Arima Valley, 244 m, 27 June–3 July 1978, ♀ (B. Camilla, H. V. Weems, FSCA). GUYANA Kurupukari Riv., Essequibo Riv., 1 Oct. 1937, ♀ (Hassler, AMNH). SURINAM Paramaribo, Aug. 1967, ♀ (V. Doesburg, AMNH). COLOMBIA *Boyaca:* Río Upia, 850–950 m, Nov., Dec. 1945, ♀ (AMNH). *Meta:* Puerto Lleras, Lomalinda, 13 Sept. 1986, ♀ (B. T. Carroll, MCZ). ECUADOR 7♀ (von Hagen, AMNH). PERU *Loreto:* Chanchamayo Valley, 2♀ (W. Weyrauch, AMNH); Parque Nac. Pacaya Samiria, 04°39'S, 74°21'W, 12 Aug. 1989, ♀ (S. Silva D., MUSM); Estiron, Río Ampiyacu, 13 Nov.–9 Dec., ♀ (B. Malkin, AMNH); Iquitos ♀ (MCZ); Parinari Canyon, Río Samiria, Nov. 1912, ♀ (Bluntschli, AMNH). *Huánuco:* Tingo María, Apr. 1940, ♀ (W. Weyrauch, AMNH); 8 km W Las Palmas, 5 Oct. 1954, ♀ (E. S. Ross, E. I. Schlinger, CAS). *Pasco:* Huancabamba, Quebrada Castillo, NW Iscozacín, 345 m, 10°10'S, 75°15'W, 8♀ (D. Silva D., MUSM). *Junín:* Amable María, ♀ (K. Jelski, PAN). *Ayacucho:* Monterrico, E Huanta, on Río San Miguel, 12°28'S, 73°54'W, (K. Jelski, J. Sztolcman, PAN). *Madre de Dios:* Reserva Cuzco Amazonico, 12°33'S, 69°23'W, 15–17 June, 1989, 8♀ (D. Silva D., MUSM); Río Tambopata Reserve, 30 km SW Puerto Maldonado, Nov. 1982, ♀ (E. S. Ross, CAS), 18 June 1987, ♂, 17–25 July 1987, 3♀, 11–29 May 1988, 4♀, ♂, 2 imm. (D. Silva D., MUSM); Zona Reservada de Manu, Puesto de Vigilancia Pakitza, 11°58'S, 71°18'W, 26 Sept. 1987, 2♀ (J. Coddington, D. Silva D., MUSM), 9 Oct. 1987, 2♂ (D. Silva D., J. Coddington, USNM), 27 Nov. 1987, ♀ (J. Bohorquez, MUSM). BRAZIL *Roraima:* Estação Ecológica de Maracá, Ilha de Maracá, Rio Uraricoera, 29 Mar. 1987, ♂ (A. A. Lise, INPA). *Amazonas:* Rio Autás, Santa Amelia, 9 Sept. 1914, ♀ (A. Roman, NRMS); Manaus, Igapó Tarumá Mirim, 3 Oct. 1987, ♀, 11 Mar. 1988, ♀ (H. Höfer, INPA); Manaus, Reserva Ducke, 11 Apr. 1973, ♀ (L. P. Albuquerque, MCN, 19290); Manaus, Reserva Campina, 7 Dec. 1973,



Figures 403-406. *Ocrepeira sorota* n. sp., female. 403-405, epigynum. 403, ventral. 404, posterior. 405, lateral. 406, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

♀ (L. P. Albuquerque, MCN); Fazenda Esteio, Manaus, 11 Dec. 1985, ♂ (B. C. Klein, MCN 20052); Tabatinga, Aug. 1984, ♀ (A. Cerrutti, MNRJ). *Mato Grosso*: Utiariti, Nov. 1966, ♂ (F. Lenko, MZSP 5616). *Bahia*: Fazenda N. S. Das Neves, Itamarajú, 9 Oct. 1987, ♂ (J. S. Santos, MCN 11011); Fazenda Almada, Uruçuca, 27 Nov. 1977, ♂ (J. S. Santos, MCN 20052). *BOLIVIA La Paz*: Miguillas, 1,800 m, Irupana to Circuata, 2-3 Dec. 1984, ♂ (L. Peña, AMNH).

***Ocrepeira sorota* new species**
Figures 403-406; Map 6

Holotype. Female holotype from Sorota, 2,800 m, Depto. La Paz, Bolivia, 11-14 Nov. 1984 (L. E. Peña), in AMNH. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange-brown, cephalic region gray to black. Chelicerae, labium, endites orange. Sternum orange. Coxae light orange; legs with femora orange, distally black, distal articles black; third femora with a black ring. Dorsum of abdomen black with irregular white spots and posteriorly paired white spots (Fig. 406); venter whitish gray, sides black. Eyes subequal. Anterior median eyes 1.3 diameters apart. Posterior median eyes 1.2 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 di-

ameter of anterior median eyes. Abdomen as in Figure 406. Total length 5.5 mm. Carapace 2.7 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.7. Second patella and tibia 3.2 mm, third 1.7, fourth 2.4.

Diagnosis. *Ocrepeira sorota* differs from all others by its black coloration (Fig. 406) and the unusual epigynum, having a median lobe with a lip and the posterior median plate raised above the lateral plates (Fig. 404).

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THE NEOTROPICAL ORB-WEAVING SPIDERS OF THE GENERA
WIXIA, POZONIA, AND OCREPEIRA (ARANEAE: ARANEIDAE)

HERBERT W. LEVI 1

Abstract. The species previously placed in *Wixia* fall into three distinct genera: *Wixia*, *Pozonia*, and *Ocrepeira*. *Wixia* is known from only one pair of adults collected recently and the holotype collected in the last century, and several immatures, all from the Amazon region. Three species of *Pozonia*, all previously known, are distributed from Mexico and the West Indies to Paraguay. *Ocrepeira* contains 67 species, two north of Mexico and 65 from Mexico to Argentina and Chile. Forty-six of the *Ocrepeira* species are new (70% of the species) while 18 (30%) were previously known. There are eight new synonyms of the 18 previously known names. Two North American species of *Wixia* are transferred to *Ocrepeira*.

The species of the three genera differ in the shape of the carapace and the abdomen.

The few webs that are known, made by species of *Pozonia* and *Ocrepeira*, are complete orbs placed

almost vertically.

INTRODUCTION

The family of araneid orb weavers, Araneidae, is the third largest spider family.

The only larger ones are the jumping spiders (Salticidae) and the mainly Holarctic

Linyphiidae. Comprehensive revisions and

keys covering the whole Neotropics are not

available for either of these families. Per-

haps half of the Neotropical araneid orb

weavers have now been revised. The first

revisions of Neotropical species were made

together with the Nearctic species: *Gea*

and *Argiope* (Levi, 1968), *Neoscona* (Ber-

man and Levi, 1971), and *Eriophora* (Levi,

1971). These will eventually be updated.

The first revision of the Neotropical ara-

neids was that of *Micrathena* and *Chae-*

tacis (Levi, 1985), followed by *Alpaida*

1 Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts 02138.

(Levi, 1988), *Witica* (Levi, 1986), *Epei-*

roides, *Bertrana*, and *Amazonopeira* (Levi,

1989), *Araneus*, *Dubiepeira*, and *Acule-*

peira, (Levi, 1991a), Larinia (Harrod et al., 1991), Edricus and Wagneriana (Levi, 1991b), and Parawixia (Levi, 1992).

My goal has always been to make it possible to determine animals so that they can be used for research. When I started work, it was a longstanding tradition that systematists would determine animals for biologists in other fields. However, it seemed absurd to me that systematists spent their time identifying specimens, rather than working on revisions and making this knowledge directly available to these specialists. Revisions allow the identification of specimens and also provide a context for the naming of new species. Naming of new species should not be attempted before the genus has been revised and common species, named in the last century, illustrated and their variation noted.

When I started work, there were few spider specialists in North America. When Jocelyn Crane worked on the behavior of Venezuelan jumping spiders (1948), she first had to do the taxonomic work herself. At the same time, Kaston published Spiders of Connecticut (1948). This work

showed the value of a clear text and good illustrations in taxonomic work. Spiders can readily be identified with short, well-illustrated descriptions such as these, but not with lengthy, elaborate descriptions accompanied by poor illustrations (for example, Petrunkevitch, 1925). Therefore, my descriptions of Neotropical orb weavers are accompanied by drawings of sev-

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eral views of the spider. To answer questions about my working and drawing methods for these revisions, a description MCN is provided below.

MCZ

MATERIALS AND

ACKNOWLEDGMENTS

o r i n n MECN

Specimens from the following collections were used whose curators I thank for making the material available. MFC

American Museum of Natural History, New York, United States; N. Platnick, L. Sorkin
Natural History Museum, London, Great Britain; P. Hillyard, MLJ
F. Wanless

California Academy of Sciences, MLP
San Francisco, California, United States; W. J. Pulawski, D.
Ubick MNHN

Cornell University Collection,
kept in the AMNH; N. Platnick
Carlos Valderrama A., Bogota, MNRJ
Colombia

D. A. Dean, College Station, MNSD
Texas, United States

D. Ubick, San Francisco, California, United States MUSM
Florida State Collection of Arthropods, Gainesville, Florida,

United States; G. B. Edwards
Hope Entomology Collections, MZSP
Oxford University, Oxford,
Great Britain; D. Spencer-Smith,
I. Lansbury

Instituto de Ecologia, Academia MZUF
de Ciencias, Cuba; G. Alayon
Inventario Biologico Nacional,
San Lorenzo, Paraguay; J. A. Ko- NMB
chalka

Instituto Nacional de Pesquisas NRMS
da Amazonia, Manaus, Brazil; J.
A. Raphael

Institut Royal des Sciences Na- PAN
turelles de Belgique, Brussels,
Belgium; L. Baert
J. A. Kochalka

J. M. Maes, Leon, Nicaragua RLCB

Museo Argentino de Ciencias

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MACN

Naturales, Buenos Aires, Argentina; E. A. Maury

Museu de Ciencias Naturais,
Porto Alegre, Rio Grande do Sul,
Brazil; E. H. Buckup
Museum of Comparative Zoology,
Cambridge, Massachusetts,
United States

Museo Ecuatoriano de Ciencias
Naturales, Quito, Ecuador; L.
Aviles

M. E. Galiano, Buenos Aires, Argentina

Museo de Historia Natural de
Montevideo, Uruguay; R. M.
Capocasale

Maria-Luisa Jimenez, La Paz,
Mexico

Museo de Universidad Nacional,
La Plata, Argentina; R. F. Ar-
rozpide

Museum National d'Histoire
Naturelle, Paris, France; C. Rol-

lard, J. Heurtault, J. Kovoov
Museu Nacional, Rio de Janeiro,
Brazil; A. Timotheo da Costa
Museo Nacional de Historia
Natural, Santo Domingo, Do-
minican Republic; F. Del Monte
Museo de Historia Natural,
Universidad Nacional Mayor de
San Marcos, Lima, Peru; D. Sil-
vaD.

Museu de Zoologia da UJniver-
sidade de Sao Paulo, Sao Paulo,
Brazil; P. Vanzolini, L. Neme, J.
L. M. Leme

Museo Zoologico de la Specola,
Universita di Firenze, Florence,
Italy; S. Mascherini
Naturhistorisches Museum, Ba-
sel, Switzerland; C. Stocker
Naturhistoriska Riksmuseet,
Stockholm, Sweden; T. Krones-
tedt

Polska Akademia Nauk, War-
szawa, Poland; A. Riedel, W.
Starega, J. Proszynski, A. Slo-

jewska, E. Kierych

Renner L. C. Baptista, Sao Paulo, Brazil

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SMF Forschungsinstitut Sencken-

berg, Frankfurt am Main, Germany; M. Grasshoff

USNM National Museum of Natural History, Smithsonian Institution, Washington, D.C., United States; J. Coddington

ZMB Zoologisches Museum der Humboldt Universität, Berlin, Germany; M. Moritz

ZMK Zoologisk Museum, Kobenhavn, Denmark; H. Enghoff

I want to thank numerous individuals for helping. L. Leibensperger helped with various tasks including rewording the manuscript. L. R. Levi reworded sentences. D. Sherry word processed and assembled the paper. F. Boisse-Kilgo edited meticulously. M. A. Serna D. and E. H. Buckup provided locality information. R. Baptista, W. Eberhard, J. Kochalka, and Y. Lubin gave ecological and behavioral data. J. Proszynski supplied information on the Taczanowski collection. O. Kraus gave advice on a nomenclature problem. Various readers of previous manuscripts made suggestions to improve these papers and two anonymous readers suggested improvements and corrections in this paper. NSF grant GB-36161 supported the start of the revisions of *Wixia* and related genera. Publication costs of this study were covered in part by the Wetmore Colles Fund.

Equipment. 1. American Optical dissecting microscope with Greenough optics (ca. 1950) with 0.7 x, 4x, and 8x objectives. The 12 x ocular gives magnifications of 8.4 x, 48 x, and 96 x. The right reticule has a 20 by 20 (400 square) grid. Other

oculars available for higher magnification are 18 x and 30 x.

2. Leitz dissecting microscope also with Greenough optics, 1x, 4x, and 10 x objectives and 15 x, 25 x, and 32 x oculars.

In the reticule of the American Optical microscope, alternate rows of squares are numbered, which makes this reticule easier to use than the Leitz reticule with unnumbered squares.

3. Leitz Smith interference compound

microscope: used rarely for small genitalia.

Used sometimes with reflected light provided by a fiber light system (a method first suggested by J. Coddington). The optics of a compound microscope are far superior to those of any dissecting microscope. The genitalia are in a depression slide covered with alcohol.

4. Dolan-Jenner Fiber Light (Series 180)

with two arms, one lighting from the left, the other from the right. Both lights are used to see outlines; for shading and sculpturing illustrations, only the left is used.

Containers. 1. Syracuse watch glasses

(with grooved and beveled edges for stacking) are used for preliminary examination of specimens. I prefer them with ground rims so they can be stacked.

2. Stender glass dishes (22 mm deep, 52 mm inside diameter) with ground glass lids are used for detailed examination and illustration. One Stender dish is filled to one-quarter depth with light-colored washed sand, another with black silicon carbide (Carborundum, B. Opell, 1983), lapidary grade, 80 grit size. A third dish is filled on one side with white paraffin and on the other with black paraffin (made by blackening paraffin with lampblack). When making the dish, a temporary cardboard divider keeps the hot paraffin from mixing and is removed when it solidifies. While the paraffin is soft, depressions of various sizes are made, some in the black-white border.

Art Materials. 1. Papers. Tracing paper

(letter-size onion skin), coquille board no.

3, two-ply Strathmore board, for line il-

lustrations and Bainbridge board (38 by 51

cm) for mounting illustrations. The sculptured coquille board, which used to be used widely for illustrations of newspaper advertisements, is increasingly difficult to find in art stores and in consistent quality, whiteness, and evenness of texture.

2. Drawing Supplies. Rapidograph or other technical pen, sizes 000 (0.25 mm), 00 (0.3 mm), 2, 3, and 4. Black India ink: Rapidograph or Pelikan drawing ink A. Opaque white water paint (Steig's Pro-White). Good quality no. 2 pencils. Wil-

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liam Corn's lithographic crayons in pencil shape no. 3, 4, and 5. Black Staedtler Omnichrom pencils that can be sharpened (first suggested by R. Forster). Sandpaper for sharpening crayons. Camel-hair brushes, sizes 1, 00, 000. Crow-quill pen tip and holder and a desk fluorescent light having a magnifying lens.

3. Cards approximately 13 by 20 cm.

Each card is gridded into squares of a given size: 5, 6, or 7 mm etc., up to 15, 18, 21, and 25 mm. Grids are drawn with no. 00 Rapidograph pens.

4. Fixative: Krylon no. 1303 Crystal

Clear Spray or Krylon no. 1306, Workable Fixative.

5. 3M Scotch Positional Mounting Adhesive rolls for mounting illustrations on Bainbridge board.

Illustrations. In males, the left palpus is amputated (and stored in a 2 by 6 mm vial stoppered with cotton). In females, the epigynum is left attached, but pulled out slightly with a needle for examination of posterior and lateral views.

The following conventions are used in making illustrations. The illumination comes from the upper left. The anterior end of the animal is placed toward the top of the page, the posterior end toward the bottom. In side view, the head is on the left, the tail end on the right. The left side

and the structures are illustrated. In illustrating epigyna and palpi, I modify the convention to ease visualization of structures, e.g., in posterior view of the epigynum, the venter is up, the dorsum is down as you would expect if you flipped it over.

A grid card is selected so as to produce a finished illustration of 6 to 9 cm in size, about 2 to 3 times the published size. The card grid corresponds to the microscope reticule grid. A piece of tracing paper is folded in half and placed over the grid card. The pencil outline is drawn on the tracing paper. If the illustration is symmetrical, only half of the structure need be drawn; the drawing can be folded and the other half traced. Great care is required when folding to avoid distortion.

When the outline is completed, the back of the tracing paper is blackened by rubbing with a graphite pencil. The paper is put blackened-side down on a piece of Coquille board. Tracing the outline with a sharp graphite pencil transfers it to the board. Care must be taken not to dent the texture of the board.

The outline is corrected with pencil while referring to the specimen. The outline is then inked with a no. 00 Rapidograph pen, with the help of a magnifying glass under a fluorescent light. The inked outline is placed next to the microscope for completion. No. 3 and 4 Rapidograph pens are used to blacken totally the darkest areas. Cleaning brushes used for this purpose is time-consuming. The white of the reflections, the lightest areas, is surrounded lightly with Omnichrome pencil. Dimmer areas are shaded in with no. 4 lithographic crayon and Omnichrome pencils, darker areas with softer crayons. Fine white lines are made around sclerites with water color white. A camel-hair brush is used, drawn to a point by lightly twisting the wet point while touching paper. There may be problems differentiating transparent areas and borders of sclerites; for example, palpal structures close to the cymbium may be obscured by long cymbial setae. The palpus (or other structure) should be turned slightly and compared with the drawing to make sure the shape of the sclerites is correct. The palpus should be pulled apart only if many specimens are available.

The illustration is cleaned under the magnifying light. Areas covered by lithographic pencil are difficult to correct: small white dots can be made to make dark areas lighter, or some black can be lifted up with 3M Scotch Magic Tape (a G. Hormiga invention). When completed, the illustration is sprayed with artist's fixative and later mounted on Bainbridge board. After mounting, the illustrations are individually numbered with a Rapidograph lettering set. Illustrating techniques are described in some detail in Zweifel (1988) and Hodges (1988).

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Line illustrations are made on smooth Strathmore board, 2 to 3 times larger than the coquille illustrations, and are reduced to the desired size by photocopying. The photocopies are mounted with the coquille illustrations.

When illustrating and measuring, one is faced with a dilemma between pulling the specimen apart in order to be highly accurate or measuring less accurately and leaving the specimen intact for the next study. It is usually preferable to avoid damaging the specimen. Genitalia or other parts are never left on microscope slides. If a structure such as the female genitalia must be cleared with Hoyer's Medium (Krantz, 1970) and mounted between two large coverslips, they are taken off afterward and the structure is stored in a small vial with the rest of the specimen.

Type specimens. The original specimens, the types of early describers, are often not labeled as such. The concept of a holotype to which the species name is attached was not applied until early this century. The type method is quite recent, appearing after 1850. The original Code of Nomenclature of 1901 had no directions for types (Mayr, 1969; Mayr and Ashcroft, 1991). Often it is not known if the specimens examined and labeled as types are really the original specimens. The labeling of specimens as types of the Emerton collection in the MCZ was done by E. B.

Bryant, not by Emerton. The American specimens of Taczanowski at the Polish Academy of Science had only numbers that were matched to notebooks in the 1930's by Zolzislaw Raabe, who later became professor at the university in Warszawa; Raabe could not locate all specimens and some file cards indicate missing specimens (J. Proszynski, personal communication). Eugene Simon, and perhaps also N. Banks, placed additional spiders into the vials that contained the original specimens, sometimes of similar but different species. In the British Museum, many neat, inked labels of O. P.- and F. O. P. -Cambridge were made by E. Browning and others.

Lectotypes here are only designated when a mixture of species is suspected among the syntypes. Neotypes are designated only where essential to avoid later confusion. In previous revisions all adult specimens examined for the revision were designated as paratypes. In this paper only specimens from the type locality or nearby are designated as such.

Descriptions. Descriptions are made

following a standard format. An outline to be filled in later is in the computer. Notation of colors: white on the carapace and sternum in these araneid genera is usually a result of pigment granules under the exoskeleton. Fine black pigment spots are referred to as dusky. Eye measurements are expressed as ratios of the diameter (with cornea in profile) to that of the anterior median eyes (Figs. 27, 28). Distances between eyes of the anterior row are expressed as diameters of the anterior median eyes (in profile); distances between eyes of the posterior row are given as diameters of the posterior median eyes. The height of the clypeus, the distance between anterior median eyes and the edge of the carapace, is given in diameters of an anterior median eye and measured below the eye (Fig. 28f). These measurements are approximate as araneid eyes are quite variable and difficult to measure; often one side is slightly different from the other. Grasshoff (1968) discusses some of the difficulties in measuring araneid spiders and their eyes.

Other measurements are made using the ocular reticule with 400 squares and, while

accurate to about one-tenth of a millimeter, the measurements must be regarded as approximate for several reasons. The total length of the specimen depends on the angle of the abdomen to the carapace. In *Wixia*, *Pozonia*, and *Ocrepeira* the abdomen is at an angle to the cephalothorax (Fig. 40). A slight dorsal pressure makes the animal longer. [Often, as in *Ocrepeira* (Fig. 44), when illustrating the abdomen the carapace is pushed slightly down to make the abdomen more level to better

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show the pattern.] Measuring carapace length cannot be done accurately without removing the abdomen, which usually covers the posterior of the thoracic region. To avoid amputation, the measurement of carapace length (Fig. 27) is best made with the specimen on sand and viewed at an angle, but the legs may obscure the view. The width of the carapace is measured at the widest part (Fig. 27), and the mea-

surement is more accurate in specimens having a sclerotized carapace. If the carapace is soft it may be warped. In the group of genera studied here, the width of the cephalic region is measured directly behind the posterior lateral eyes (Fig. 27). However, if the longest setae of the carapace are behind the lateral eyes, they interfere with very accurate measurement. The leg articles are measured along their dorsal length; as they are not amputated and placed on a horizontal slide, there may be small errors due to parallax.

Illustrations, descriptions, and measurements were made from one specimen, and photocopies of all illustrations are kept. A more sclerotized or a softer specimen may show features not visible in other specimens. If there is considerable variation, additional illustrations are made. Notes on variation in color, pattern, or morphology are recorded on a second sheet for records and collections. Also noted on this sheet are the total lengths of about 10 females and 10 males from different localities. Total length is helpful for determining spiders, although less consistent than the

length of the leg articles (see also Levi, 1985).

When only a few specimens are available, it is difficult to decide whether some small variation actually means that the specimen belongs to a different species. I expect a separate species to exhibit not only consistent differences in genitalia, but also in color or morphology, and show similar differences in the opposite sex. Nevertheless, even with care, lumping or splitting mistakes are unavoidable.

Mapping. Our own outline maps are used and photocopied to reduce their size.

The dots are transfer dots; labeling of maps is done with a Kroy machine. The most valuable references for finding old Neotropical localities are Selander and Vaurie (1962) for Mexico and Central America, and the collection of gazetteers of Neotropical bird collecting localities by R. Paynter (1975-1991). [Several collectors of South American spiders specialized in birds as well as spiders: K. Jelski and J. Sztolcman (who collected for L. Taczanowski), E. Goeldi (who collected for E. Simon),

and Graf Keyserling, E. Simon himself, and more recently, H. Sick (Levi, 1964).] Other localities cited in the Paynter gazetteers were collecting localities frequented by collectors of various animals in the 19th century. Modern automobile maps of individual countries, especially those with gazetteers, are useful and available from map stores. Automobile maps are available for individual Mexican states and for separate regions of Argentina.

Literature citations of collection records are ignored since too many specimens in collections are misidentified.

Systematics of Neotropical orb weavers. It is not possible to estimate the number of araneid orb-weaver species based on our current knowledge. (While I anticipated about twenty species in the genus *Wixia*, the collections had close to 70 species and actually fell clearly into three genera.) The phylogenetic relationships among the orb weavers are currently unknown but certain features could turn out to be conclusive. The paramedian apophysis may be absent, present as a separate sclerite, or

fused to the conductor. In *Wixia*, *Pozonia*, and *Ocrepeira*, the presence of a paramedian apophysis attached to the conductor in the male palpus (Figs. 23, 32, 46, 47) may indicate that they are related. Other genera of the Neotropics whose males have a paramedian apophysis attached to the conductor are: *Acacesia*, *Alpaida*, *Cyclosa*, *Edricas*, *Molinaranea*, *Parawixia*, *Scoloderus*, *Verrucosa*, *Wagneriana*, and *Xylethrus*. Others probably have not been examined or their males are not known. In *Eriophora*, *Gasteracantha*

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cancriformis, and *Acanthepeira* the paramedian apophysis is a separate sclerite. Some *Micrathena* species have a paramedian apophysis attached to the conductor, others a free sclerite, others lack this structure (*M. funebris*, *M. sagittata*, *M. gracilis*, Levi, 1985): apparently it is sec-

ondarily lost. But is absence of the para-
median apophysis in other genera due to
secondary loss or did they never evolve this
structure? Of the genera that have a para-
median apophysis, Molinaranea and X(-
tethrus have not been revised. A. A. Lise
is currently revising Verrucosa. Most of
these genera are American. Parawixia may
also be found in Australia, and only Cy-
closa species are found worldwide (see Ta-
ble 1).

Other characters that support this
grouping are: the positions of the conduc-
tor in the palpus, the attachment of the
median apophysis, the number of patellar
setae, the structure of the epigynum, and
the frequent median, posterior (row of)
tubercles on the abdomen in the Alpaida
group of genera (but not in Ocrepeira).

The conductor is on the edge of the te-
gulum in Araneus (Levi, 1991a, fig. 3) and
in Larinia (Harrod et al, 1991, fig. 15),
while in the Ocrepeira and Alpaida group
of genera it is attached to the center of the
bulb, away from the edge, closer to the
cymbium (Figs. 23, 32). The median
apophysis, whose attachment is offset be-

hind the sclerite in *Araneus* (Levi, 1991a, fig. 3) and *Larinia* (Harrod et al., 1991, figs. 14, 15), is on the side of the sclerite in the *Ocrepeira*, *Alpaida* group of genera (Figs. 23, 32). While most average-sized species of the *Araneus*, *Larinia* group have 2 palpal patellar setae, there is only one in the *Ocrepeira*, *Alpaida* group. [However, dwarf males of *Kaira* lack these setae, and giant males of *Eriophora* (allied to *Alpaida*) have two. The smallest *Eriophora* male, *E. nephiloides* O. P. -Cambridge, and the largest of the *Parawixia* species, *P. bistriata* Rengger, have one large macroseta and one small.]

The scape of the epigynum has evolved numerous times in various araneoid families. In *Araneus* it has a pocket at its tip (Levi, 1991a, fig. 1). In *Larinia* this pocket may be behind a thick lip (Harrod et al., 1991, fig. 1). In *Aculepeira* (allied to *Araneus*) the tip is pointed (Levi, 1991a, fig. 543). It rarely, if ever, has a pocket in *Eriophora*, *Parawixia*, and *Ocrepeira* (Figs. 7, 29); if flat and rounded, it may have a plain, ventral depression at the tip.

At present, it is still too early to assess whether further evidence will agree or conflict with these characters.

Wixia O. P.-Cambridge

Wixia O. P.-Cambridge, 1882: 437. Type species by monotypy *Wixia abdominalis* O. P.-Cambridge.

The generic name is feminine.

Diagnosis. *Wixia* differs from most araneid genera by having the pedicel attached to the posterior third of the abdomen (Fig. 4b). It differs from *Pozonia* and *Ocrepeira* by having the carapace high and the clypeus about 2 to 4 diameters of the anterior median eyes, and from *Pozonia* by the cephalic region being almost as wide as the thoracic region (Figs. 4 a-c, 6). It differs from *Scoloderus* by having the thoracic region only slightly higher than the cephalic region (Fig. 4b).

Relationship. The shape of the carapace is an apomorphy, the swollen posterior median eye area and the palpal structure are synapomorphies shared with *Ocrepeira* and *Pozonia*, and the shape of the abdo-

men is a synapomorphy with Pozonia.

Description. The posterior median eyes face almost to the sides, being on a joint swelling (Figs. 4, 6). The first patella and tibia are as long as the carapace (Figs. 5, 6). The abdomen is anteriorly drawn out in both sexes, the female with two tubercles on its anterior tip (Figs. 4, 6). The epigynum appears to be as in *Ocrepeira* or *Pozonia* (Figs. 1-3).

The male is smaller than the female and similar in appearance (Fig. 6). Its endite has a tooth, the first coxa has a hook (Fig. 6), the palpal patella one macroseta (Fig. 6). The palpus (Figs. 5a,b) is *Ocrepeira*-like with a large median apophysis (M), a

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abdominalis

Map 1 . Distribution of *Wixia abdominalis*.

light-colored conductor (C) with a prong-like paramedian apophysis (PM) with its tip tucked under the radix (R).

Misplaced North American Species.

Wixia ectijpa (Walckenaer, 1841) =

Ocrepeira ectypa (Walckenaer).

Wixia georgia (Levi, 1976) = *Ocrepeira*

georgia (Levi). NEW COMBINATION.

Misplaced species. The following species have been misplaced in *Wixia*, other than those placed here in *Pozonia* and *Ocrepeira*:

acrosomoides (Mello-Leitao, 1939: 109), is *Wagner-*

iana acrosomoides, see Levi, 1991b: 404.

albotaeniata Mello-Leitao, 1942: 403, is *Alpaida ru-*

bellula (Keyserling, 1892), see Levi, 1988: 395.

dstricta (O. P. -Cambridge, 1889: 39) is a *Parawixia*

not *Wixia* as thought in Levi, 1991a: 179.

fissifasciata Mello-Leitao, 1945: 244, is *Alpaida bi-*

cornuta (Taczanowski), see Levi, 1988: 387.

gavensis Camargo, 1950: 231, is *Wagneriana gav-*

ensis (Camargo), see Levi, 1991b.

infelix Soares and Camargo, 1948: 378, fig. 35, S, is

a *Mecynogea*.

nigropunctata Mello-Leitao, 1941: 214, is *Alpaida*

rubellula (Keyserling, 1892), see Levi, 1988: 395.

rubellula (Keyserling, 1892: 81), is *Alpaida rubellula*

(Keyserling, 1892).

tatarendensis (Tullgren, 1905: 34) belongs to a new-genus, close to *Wixia*.

Unrecognizable Species.

proximo Mello-Leitao, 1940: 207, type specimens lost.

Wixia abdominalis O. P.-Cambridge

Figures 1-6; Map 1

Wixia abdominalis O. P.-Cambridge, 1882: 438, pi.

31, fig. 13, 9. Female holotype from "the Amazon,"

in HECO, examined. Roewer, 1942: 881. Bonnet,

1959: 4828.

Description. Female holotype. Cara-

pace orange-brown with short setae. Che-

licerae, labium, endites, sternum, legs or-

ange-brown. Dorsum of abdomen white

with some dusky marks (Fig. 4a); venter dusky. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes two diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 3.5 diameters of anterior median eyes. There is a tooth on the anterior margin of the chelicera, on each side of which is a smaller one. Abdomen drawn out anteriorly with two points (Figs. 4a, b). Total length 5.4 mm. Carapace 3.1 mm long, 2.3 wide, 1.9 wide behind eyes, 1.6 high in thoracic region. Abdomen 8.8 mm long. First femur 2.7 mm, patella and tibia 3.1 mm, metatarsus 2.0 mm, tarsus 0.9 mm. Second patella and tibia 3.1 mm, third 1.8 mm, fourth 2.5 mm.

Male. Coloration darker than female with yellow-orange and dark patches posteriorly on each side of carapace. Legs with dark rings, abdomen spotted with venter black. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes 1.4 diameters apart.

The abdomen has a bulge anteriorly on the underside (Fig. 6). The fourth coxa has a macroseta on a tubercle, the fourth trochanter has a macroseta. There is a large, long macroseta on a tubercle at the proximal end of the second femur and several macrosetae at the proximal end of the fourth femur (Fig. 6). The second tibia is

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Figures 1-6. *Wixia abdominalis* (O. P. -Cambridge). 1-4, female. 1-3, epigynum. 1a, ventral with scape. 1b, ventral, scape torn

off. 2. posterior. 3a, lateral with scape. 3b, lateral, scape torn off. 4a, dorsal. 4b, lateral. 4c, eye region and chelicerae. 1b, 2,

3b, 4a, 4c, holotype. 5, 6, male. 5, left male palpus. 5a, mesal. 5b, ventral. 6, lateral.

Abbreviations. C, conductor; M, median apophysis; PM, paramedian apophysis; R, radix.

Scale lines. 1 .0 mm, genitalia 0.1 mm.

proximally swollen with several long macrosetae (Fig. 6). Total length 5.5 mm.

Carapace 3.4 mm long, 2.9 wide, 1.8 mm wide behind eyes, 1.6 mm high in thoracic region. Abdomen 6.2 mm. First femur 3.2

mm, patella and tibiae 3.8 mm, metatarsus
2.4 mm, tarsus 0.9 mm. Second patella and
tibia 2.9 mm, third 1.9 mm, fourth 2.7
mm.

Variation. The second female collected
was 7.5 mm total length, abdomen 14 mm

high (Fig. 4b). It was collected with the
male after completion of the revision and
its illustration was added before printing.

Specimens Examined. GUYANA Ku-
yuwini Landing, Kuyuwini River, 20-21
Nov. 1937, imm. (W. G. Hassler, AMNH).
BRAZIL Goids: Porteria, Pirenopolis, 20
July 1942, imm. (F. Lane, MZSP 8023);
Jaragua, 12 July 1942, imm. (F. Lane,
MZSP 7273); Fazenda Aceiro [?], Oct. 1962,
imm. male (MZSP 7864). BOLIVIA Beni:

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Estac Biologica Beni, 225 m, 14°47'S,
66°15'W, 8-14 Nov. 1989, 9, 6 (J. Cod-
dington, S. Larcher, E. Panaranda, C. Gris-

wold, D. Silva D.).

Pozonia Schenkel

Pozonia Schenkel, 1953: 24. Type species by designation and monotypy *Pozonia cornuta* Schenkel, 1953: 25, fig. 23, imm. Brignoli, 1983: 279. The generic name is feminine.

Note. The holotype of *P. cornuta* is immature.

It is believed to be *P. nigroventris* but might be *P. bacilli* Jera.

Diagnosis. *Pozonia* species differ from those of *Ocrepeira* by having the pedicel attached to the posterior half, and rarely to the middle of the abdomen (Figs. 10, 14, 19). Females of the *Pozonia* species differ from those of *Wixia* and *Ocrepeira* by the width of the cephalic region of the carapace, which is less than half that of the thoracic region (Fig. 18). The abdomen, unlike that of most other araneids, has scattered spindle-shaped setae (Figs. 10, 19). The sternum of the male has a median tubercle, unlike that of any other araneid male (Fig. 25).

The placement of the pedicel on the

abdomen is a synapomorphy with *Wixia*.

The shape of the carapace, the spindle-shaped setae, and the structure of the male sternum are autapomorphies of *Pozonia*.

Specimens of *Pozonia* had erroneously been placed in *Kaira*. *Kaira* has the posterior median eyes facing straight up, while those of *Pozonia* are on a bulge and face at an angle, forward and sideways (Figs. 19, 24). *Kaira* has a minute, slightly sclerotized epigynum with a median keel; the epigynum of *Pozonia* is large and sclerotized, with a scape (Figs. 7-9, 11-13, 15-17). The male of *Kaira* is minute and has a median apophysis with denticles and two flagella; the median apophysis of *Pozonia* is relatively large, bearing two prongs distally (Fig. 23), and the palpus has a paramedian apophysis, which is absent in *Kaira*.

Description. The carapace is higher in the thoracic region than in the cephalic region (Figs. 10, 14, 19). The posterior median eyes face forward and laterally and are on a swelling, a synapomorphy with *Wixia* and *Ocrepeira*. The carapace has

short setae behind the eyes and long hair-like setae on the anterior of the thoracic groove (Fig. 18). The abdomen has pairs of tubercles or swellings, some long setae and some spindle-shaped setae (Figs. 10, 14, 19). Spindle-shaped setae are also found in the Australian *Dicrostichus* (Mastophorinae) and the theridiid genus *Chrysso* (*Meotipa*) and are believed a homoplasy. The first patella and tibia are longer than the carapace. The tibia of the first leg is curved or slightly S-shaped with dense, light-colored macrosetae on the underside (Figs. 10, 14, 19). Both are autapomorphies of *Pozonia*. The scape of the epigynum is flat with indistinct or no wrinkles and no distal pockets (Figs. 7-9, 11-13, 15-17).

The male has a tooth on the endite, a hook on the distal margin of the first coxae, and macrosetae on the fourth coxa and trochanter (Fig. 25). The second tibia has large macrosetae on the anterior surface (Fig. 26). The abdomen is shorter than that of the female (Fig. 24). The structure of the palpus is similar to that of *Ocrepeira* with a pointed paramedian apophysis attached to the conductor, but the median apophysis is distally forked and the ter-

minial apophysis is a small scale (Fig. 23).

All known species are Neotropical.

Natural History. Females make a nocturnal orb web (*P. dromedaria*) and are probably found in the canopy (*P. nigroventris*). The web illustrated by Eberhard (1986, p. 74, fig. 4.2i), as *Wixia* "species 573," is that of an immature *Pozonia* from Cali, Colombia, total length 5 mm, abdomen, 4.7 mm high. The plane of its orb web was at a 90° angle with the horizontal plane, the orb having a 7 cm horizontal diameter, 8.8 cm vertical.

Immature specimens are fairly common in collections, but adults are not.

Key to *Pozonia* Females

1. Scape of epigynum short, less than twice as long as wide (Figs. 7, 9); Mexico, Central America *dromedaria*

Scape longer, more than twice as long as wide (Figs. 11, 15) 2

[Begin Page: Map 2, Page 59]

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bacillifera

dromedaria

Map 2. Distribution of Pozonia species.

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2(1). Posterior median plate bottle-shaped, much wider than long (Fig. 12); Trinidad to

Paraguay bacillijera

Posterior median plate roughly hexagonal, four margins concave, posteriorly narrower than lateral plates (Fig. 16); Mexico, Central America, Cuba, Jamaica

nigroventris

Pozonia dromedaria (O. P.-Cambridge),

new combination

Figures 7-10; Map 2

Kaira dromedaria O. P.-Cambridge, 1893: 115, pi.

14, fig. 9, 2. Female holotype from Teapa, Tabasco,

Mexico, in BMNH, examined. F. P.-Cambridge,

1904: 522, pi. 51, fig. 11, 2. Roewer, 1942: 904.

Caira dromedaria: — Bonnet, 1956: 925.

Description. Female from Esezau, Costa Rica. Carapace orange with a pair of black patches behind the eyes with some short black setae and long, white hair-like setae behind the black patches and around the sides of the thoracic region. Chelicerae orange. Labium, endites orange-brown. Sternum bright orange-brown. Coxae orange-brown, distally lighter; legs orange with brown to black rings and patches, coxae and legs with white hair-like setae. Dorsum of abdomen white and gray, posterior with black transverse bars, some spindle-shaped black setae and some long, white hair-like setae (Fig. 10); venter black. Posterior median eyes same diameter as

anterior medians, laterals 0.8 diameter.

Anterior median eyes their diameter apart,

2.2 diameters from laterals. Posterior median eyes 1.5 diameters apart, 3 diameters from laterals. Height of clypeus equal to 1 diameter of the anterior median eyes.

Abdomen with pair of dorsal humps and five humps in middle (Fig. 10). Total length

8.3 mm. Carapace 4.7 mm long, 4.0 wide.

1.7 behind eyes. First femur 5.7 mm, patella and tibia 6.8, metatarsus 3.6, tarsus 1.7. Second patella and tibia 6.2 mm, third 3.9, fourth, 5.8. Abdomen 9.6 mm high.

Variation. The female holotype has the posterior median plate of the epigynum wider than the illustrated specimen from Costa Rica. Total length of females 7.4 to 8.3 mm.

Diagnosis. The epigynum of the female differs from that of *P. nigroventris* by the short, tongue-shaped scape which is barely twice as long as wide.

Natural History. *Pozonia dromedaria*

was collected in an orb at night in Costa Rica. The orb had closely spaced, sticky-spirals reminiscent of webs of *Ocrepeira* species observed in Colombia. The web was slanted, at about 45° and was about 2.5 m above the ground in relatively open habitat near the house (W. Eberhard, personal communication.)

Specimens Examined. MEXICO Oaxaca: 3.2 km NE Tehuantepec, 31 Aug. 1964, ♀ (J. W. Ivie, AMNH). COSTA RICA San Jose: San Antonio de Escazu, 1,300 m, Feb. 1981, ♀ (W. Eberhard 2177, MCZ). PANAMA Panama: Barro Colorado Island, Lago Gatun, 19 Aug. 1939, ♀ (A. M. Chickering, MCZ).

Pozonia bacillifera (Simon),

new combination

Figures 11-14; Map 2

Araneus (*Vixia*) *bacillifer* Simon, 1895: 819, fig. 870,

2. Simon, 1897: 475. Two immature syntypes from

Paraguay, in MNHN no. 8459, examined.

Wixia bacillifera:— Roewer, 1942: 881. Bonnet, 1959:

4828.

Note. Simon's figure 870 is a mature female showing the scape of the epigy-

Figures 7-10. *Pozonia dromedaria* (O. P.-Cambridge). female. 7-9, epigynum. 7, ventral. 8, posterior. 9, lateral. 10, lateral.

Figures 11-14. *P. bacillifera* (Simon), female. 11-13, epigynum. 11, ventral. 12, posterior. 13, lateral. 14, lateral.

Figures 15-26. *P. nigroventris* (Bryant). 15-20, female. 15-17, epigynum. 15, ventral. 16, posterior. 17, lateral. 18, carapace.

19, lateral. 20, posterior. 21-26, male. 21-23, left palpus. 21, mesal. 22, paracymbium. 23, pulled apart. 24, dorsal. 25, sternum

and left coxae. 26, left second tibia, ventral.

Scale lines. 1.0 mm, genitalia 0.1 mm.

[Begin Page: Figs. 7-26, Page 61]

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median apophysis

paracymbium

[Begin Page: Page 62]

num. The description was published two years later and the surviving syntypes are immature.

The posterior median eyes of Simon's immature syntype have the same diameter as the anterior medians, laterals 0.6 diameter. Anterior median eyes 1.1 diameters apart, 1.4 diameters from laterals. Posterior median eyes 1.5 their diameter apart, 1.6 diameters from laterals. Lateral eyes separated by 0.6 their diameter. Ocular rectangle is slightly wider than long and wider behind than in front. Height of clypeus equal to one-third diameter of anterior median eyes. Abdomen with three anterior tubercles. Total length 7.0 mm. Carapace 3.4 mm long, 2.7 wide, 1.2 wide behind eyes. First femur 4.4 mm, patella and tibia 5.4, metatarsus 2.7, tarsus 1.4. Second patella and tibia 4.9 mm, third 2.9, fourth 3.5. Abdomen 11.5 mm high.

Description. Female from Trinidad.

Cephalic region dusky with long white hairs. Chelicerae orange. Labium, endites

dusky orange. Sternum bright orange. Coxae dusky orange; legs dusky orange-brown. Dorsum of abdomen white and black; venter black. Posterior median eyes 1.2 diameters of anterior medians, laterals 1 diameter. Anterior median eyes 1.2 diameters apart, 2.2 diameters from laterals. Posterior median eyes 1.8 diameters apart, 2.2 diameters from laterals. Ocular quadrangle wider behind than in front. Height of clypeus equal to 0.9 diameter of anterior median eyes. Abdomen with two anterior tubercles (Fig. 14). Total length 8.7 mm. Carapace 4.9 mm long, 4.1 wide, 2.1 wide behind eyes. First femur 6.2 mm, patella and tibia 7.5, metatarsus 4.2, tarsus 1.8. Second patella and tibia 7.2 mm, third 4.2, fourth 6.2. Abdomen 10.2 mm high.

Variation. The adult female from Sao Paulo measured 8.7 mm total length, the abdomen 8.0 mm high; the one from Peru 13.4 total length, abdomen 17 mm high. The Peruvian female from Puerto Maldonado was darker than the others with the cephalothorax orange-brown, abdomen dusky, except for its anterior region, which was black underneath. The poste-

rior median plate of the epigynum of the same female was more angular than that of other specimens. The illustrations were made from the female collected in Trinidad.

Diagnosis. The epigynum differs from that of *P. nigroventris* by the bottle-shaped posterior median plate, from that of *P. drome daria* by the longer scape (Fig. 11).

Specimens Examined. TRINIDAD Maracas Valley, Feb. 1972, 9 (J. A. L. Cooke, AMNH). PERU Hudnuco: Cueva de Las Lechuzas, Tingo Maria, 31 June 1967, 9 (A. F. Archer, W. Sherbrooke, AMNH). Madre de Dios: Cuzco Amazonica Lodge, nr. Puerto Maldonado, 8 Mar. 1990, 9 (D. Silva D., MUSM); Zona Reservada Tambopata, 3 June 1988, 9 (J. Coddington, USNM). BRAZIL Sao Paulo: Amparo, Fazenda Santa Maria, 25 Nov. 1942, imm. (F. Lane, MZSP 8071); Ilha Vitoria, 16 Mar. -7 June 1965, 9 (Exped. Depto. Zool., MZSP 4141). Parana: Serra Negra, imm. (A. Mayer, MNRJ). Rio Grande do Sul: Porto Alegre, imm. (P. Buck, MNRJ); imm., 1984 (A. A. Lise, MCN).

Pozonia nigroventris (Bryant),

new combination

Figures 15-26; Map 2

Wixia nigroventris Bryant, 1936: 329, pi. 23, fig. 10.

Immature female holotype from Loma del Gato, 2,600-3,325 ft [790-1,010 m], Sierra de Cobre, Santiago Prov., Cuba, in MCZ, examined. Bryant, 1940: 346, fig. 113, 8 (incorrect secondary spelling *nigri-ventris*). Roewer, 1942: 882. Bonnet, 1959: 4829 (as *nigriventris*).

? *Kaira granadensis* Mello-Leitao, 1941: 118. Immature holotype from Cucuta [Depto. Norte de Santander], Colombia, in MNRJ, examined. Brignoli, 1983: 271. NEW DOUBTFUL SYNONYMY.

? *Pozonia cornuta* Sehenkel, 1953: 25, fig. 23, imm.

Immature male holotype from El Pozon, Falcon Prov., Venezuela, in NMB no. 1815a, examined.

NEW DOUBTFUL SYNONYMY.

Nomenclatural note. Although the holotype of *nigroventris* Bryant is immature, it is certain that the male collected later in Cuba is conspecific since we can expect that there is only one species belonging to

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WIXIA, POZONIA, AND OCREPEIRA • Levi

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Pozonia in the Greater Antilles. Males and mature females were found in Mexico and Central America. The immature holotype of *granadensis* Mello-Leitao is similar to the immature holotype of *nigroventris* but it might be *A. dromedaria*. *Pozonia cornuta* is probably this species but it might be *P. bacillifera*.

Description. Female from Barro Colorado Island, Panama. Carapace, chelicerae, labium, endites, sternum orange-yellow. Carapace darker behind median eyes and with long, white hair-like setae. Coxae, legs yellowish. Dorsum of abdomen white with black streaks (Fig. 20), with some spindle-shaped black setae; venter black (Fig. 19). Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter of anterior medians. Anterior median eyes 1.2 diameters apart, 1.6 di-

ameters from laterals. Posterior median eyes 1.3 diameters apart, 2.3 from laterals. Ocular rectangle wider than long. Clypeus height equal to 0.6 diameter of anterior median eyes. The first and second legs have many macrosetae on distal part of tibia and along metatarsus. Abdomen long and narrow (Figs. 19, 20). Total length 14 mm. Carapace 5.1 mm long, 4.1 wide, 2.1 behind eyes. First femur 6.5 mm, patella and tibia 8.0, metatarsus 4.7, tarsus 2.0. Second patella and tibia 7.5 mm, third 4.5, fourth 6.4. Abdomen 16 mm high.

Male from Sierra de Cobre, Cuba. Carapace orange-brown, cephalic region lighter. Chelicerae dusky brown. Labium, endites brown. Sternum orange with dusky knob. Legs dusky orange. Venter of abdomen black. Posterior median eyes 0.7 diameter of right anterior median, anterior laterals 0.7 diameter, posterior laterals 0.4. Anterior median eyes their diameter apart. Posterior median eyes with only right one on a tubercle. Ocular quadrangle a transverse rectangle. Height of clypeus equal to 1 diameter of anterior median eyes. Sternum with a median knob (Fig.

25). First coxa with hook and dorsal tubercle, fourth with macroseta. Fourth trochanter with one macroseta. Second tibia

thicker than first, slightly flattened, swollen, with prolateral macrosetae (Fig. 26).

Abdomen seen in Figure 24. Total length 5.6 mm. Carapace 3.1 mm long, 2.3 wide,

1.1 wide behind eyes. First femur 4.1 mm, patella and tibia 4.8, metatarsus 2.8, tarsus 1.5. Second patella and tibia 4.1 mm, third 2.9, fourth 3.8.

Note. Males and females were matched because both were uniquely found in the Greater Antilles.

Variation. The immature holotype of *A. nigroventris* (Fig. 20) is only 4.5 mm long, and has posterior median eyes larger than anterior medians, and the ocular rectangle wider than long. Carapace 2.5 mm long,

2.2 wide, 1.1 behind eyes. First patella and tibia 3.8 mm, abdomen 4.8 high. The specimen from Guatemala has the clypeus less than half the AME diameter. Total length of females 8.4 to 14 mm, of males 5.5 to

6.5. Illustrations of the female (Figs. 15-19) were made from specimens from Barro Colorado Island, Panama, and of the male (Figs. 21-26) from a specimen from Cuba.

Diagnosis. The epigynum of the female differs from that of *A. dromedaria* by the long scape (Figs. 15-17); it differs from that of both *A. dromedaria* and *A. bacillifera* by the hexagonal shape of the posterior median plate (Fig. 16).

Natural History. A male from Panama came from a canopy sample.

Specimens Examined. MEXICO Yucatan: Kabah [Kaba], 19 July 1964, 3 (J. C. Pallister, AMNH). GUATEMALA Peten: Poptun, Finca Ixobel, 7 Feb. 1980, ♀ (V. Roth, AMNH). COSTA RICA Puntarenas: nr. Tarcoles, Reserva Carara, 23 Nov. 1984, imm. (W. Eberhard 2682, MCZ). Cartago: Turrialba, 23 July-13 Aug. 1965, imm. (A. M. Chickering, MCZ). PANAMA Panama: Summit, July 1939, 2, Aug. 1950, 2<5 (both A. M. Chickering, MCZ); Barro Colorado Isl., 23 May, 1952, 9 (T. C. Schneirla, AMNH); Pipeline Rd. nr. Gam-

boa, 25 July 1979, 6 (M. K. Stowe, MCZ);
12 July 1976, <S (Y. Lubin, JAK); Fort Sher-
man, Aug. 1939, \$ (A. M. Chickering,
MCZ); Chiva Chiva, Oct. 1946, 6 (N. L.

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H. Krauss, AMNH); Chilibre, July 1950,
imm. (A. M. Chickering, MCZ).

CUBA Sierra del Cobre, 3,000-3,800 ft
[900-1,200 m], 3-7 July 1936, \$ (P. J. Dar-
lington, MCZ); Loma de la Alegria, Cayo
Sabinal, Camagüey, 28 Jan. 1989, imm. (A.
Avila Calvo, IESC). JAMAICA St. Tho-
mas: 6.5 mi [10.4 km] NE Bath, 10 Oct.
1957, imm. (A. M. Chickering, MCZ).

Ocrepeira Marx

Ocrepeira Marx, 1883: 22. Type species by monotypy
Epeira ectijpa Walekenaer.

Amamra O. P. -Cambridge, 1889. 55. Type species
by monotypy *Amamra bituberosa* O. P. -Cam-

bridge, 1889.

Notes. Marx failed to indicate that he was introducing a new generic name and only listed *ectypa* in a list of species in combination with a previously unknown generic name: *Ocrepeira*. Neave (1939-1975) does not list this generic name. According to the International Code of Zoological Nomenclature (1985) Art. 12 b (5), *Ocrepeira* is an available name, and the identity of the type species *Epeira ectypa* Walekenaer, 1841 is not in doubt.

F. P. -Cambridge (1904) synonymized *Amamra* with *Wixia* and has been followed by others including Bryant (1936: 329, 330) and myself (1976), although Bryant questioned this synonymy. The shape of the carapace is a very good generic character in the orb weavers and the carapace shape of *Wixia abdominalis* differs from that of other species previously placed in the genus (Figs. 5, 6).

Diagnosis. The carapace differs from that of *Pozonia* and *Acacesia* (Levi, 1976, fig. 78) by being wide in the eye region (Fig. 27), with some exceptions, and differs

from that of *Wixia* by being relatively low, with the clypeus height equal to one or at most two diameters of the anterior median eyes (Fig. 28). The abdomen, unlike that of *Parawixia* and *Wagneriana*, has only two anterior humps (with some exceptions), and the attachment of the pedicel, unlike that of *Wixia* and *Pozonia*, is at the anterior half of the abdomen (Fig. 40).

The paramedian apophysis of the palpus is a straight rod, as is that of *Pozonia*, with the tip rounded (Fig. 32), sometimes pointed (Fig. 106), rarely short (PM in Fig. 46).

The paramedian apophysis of *Wagneriana* is L-shaped, and that of *Parawixia* and *Eriophora* is enlarged, distal to the conductor, and disk-shaped (Levi, 1991b).

Ocrepeira females have been confused with those of *Neoscona* (Berman and Levi, 1971, figures 121-124). Differences are that the *Neoscona* carapace is less sclerotized, with more hair-like setae, the cephalic region is narrower than that of *Ocrepeira*, and the posterior median eyes face dorsally. *Neoscona* females can be separated by the oval abdomen from the few *Ocre-*

peira whose eyes face dorsally; *Ocrepeira* whose eyes face "up" have a shield-shaped abdomen or an oval pattern-less abdomen with a dark frame (Fig. 390). In addition, the venter of the abdomen of *Neoscona* has two to four pairs of white patches on black, while that of *Ocrepeira* has only one pair of white patches. African *Pararaneus* (Grasshoff, 1968) species differ by having only a short lobe on the conductor which might be a paramedian apophysis; the median apophysis has a proximal projection and has the eyes facing dorsally. Its coloration and palpal structures (Grasshoff, 1968) are similar to *Ocrepeira*'s.

Description. The cephalic region is often darker than the thoracic. The sternum may be darker than the coxae or may have some white pigment, the legs are ringed and the pattern on the dorsum of the abdomen is variable among specimens of the same species. In a number of species, however, the anterior part of the abdomen is dark in color to a distinct line between the tubercles (Figs. 148, 189, 357). Many of the species with a light-colored abdomen in alcohol and with few dorsal marks probably are green when alive (as is *O. albo-*

punctata). The venter of the abdomen is marked gray to black, frequently with species-characteristic white spots or patches. This ventral pattern can be used to match males with females.

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WIXIA, POZONIA, AND OCREPEIRA • Levi

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Two species, *O. hirsuta* and *O. lapeza*, have the sternal color pattern with paired light patches otherwise characteristic of *Parawixia*. *Ocrepcira lapeza* (Fig. 343) has paired dark spots on the carapace, as is also characteristic of *Acanthepeira* and *Parawixia* species.

Males are usually darker than females, have a darker cephalic region than the female, and often have dark, radiating streaks from the thoracic groove toward the cephalic region (Fig. 368). Males are more likely than females to have white pigment under the sternum and a white

cardiac mark on the abdomen.

The carapace is low, the clypeus height equal to one to two diameters of the anterior median eyes. The cephalic region is relatively wide in females. The posterior median eyes are on a swelling, the eyes facing anterolaterals. This posterior median eye position is more pronounced in *Ocrepeira* than in related genera. However, several species lack this swelling (*O. yaelae* Fig. 357, *O. comaina* Fig. 368, *O. herrera* Fig. 390, *O. covilli* Fig. 399). These same species have a narrow cephalic region (*camaca* Fig. 97, *yaelae* Fig. 357, *herrera* Fig. 390, *covillei* Fig. 399). The narrow head and eyes "facing up" is considered as secondary since some species show intermediate stages (*gulielmi* Fig. 239, *vie jo* Fig. 384). The genitalia of these species are similar to those of other *Ocrepeira*. The anterior or posterior median eyes are the largest, the laterals always the smallest. The lateral eyes may be slightly separated from each other. There are some setae on the carapace, usually a bunch of setae above the lateral eyes. The first leg is the longest, the third the shortest. Usu-

ally the second leg is slightly longer than the fourth. The abdomen, unlike that of *Pozonia*, has only two anterior tubercles. These tubercles are rarely absent (*comaina* Fig. 368, *herrera* Fig. 390, *covillei* Fig. 399). Only *O. rufa* (Fig. 51), *O. arturi* (Fig. 104), and *O. mastophoroides* (Fig. 140) have numerous tubercles. It is certain that all *O. mastophoroides* have these many tu-

bercles, but perhaps only some individuals in *O. rufa* and *O. chickeringi* do. Few have an anterior median tubercle (*darlingtoni* Fig. 332, *atuncela* Fig. 256). Some have the anterior tubercles projecting, others have them pointing laterally, and in some this character is variable, differing among individuals of the same species. The abdomen is attached slightly vertically to the cephalothorax, the anterior overhang is greater than in species of some other genera, but less than in *Wixia* and *Pozonia*.

Males appear similar to females, but have a narrow cephalic region, and a smaller abdomen, with less distinct tubercles. The endite of all males has a tooth facing a tubercle on the proximal end of the palpal femur. The sternum of *O. covillei* has sev-

eral short macrosetae, but many specimens lack these setae. The first coxa has a hook on the distal margin (Fig. 34); there is a groove on the second femur. The third and fourth coxae frequently have one or more short macrosetae, sometimes on a tubercle. The third and fourth trochanters may also have macrosetae (Fig. 34). These macrosetae are quite variable, often of different number on left and right sides, sometimes absent in individuals of species that have them. The palpal patella of all species has one long macroseta. The second tibia is always thicker than the first, sometimes swollen, bearing sometimes long macrosetae, but never having outgrowths or branches (Fig. 35).

The epigynum is heavily sclerotized with a broad lobe-shaped scape usually attached posteriorly to the base. The scape may be longer than the width of the base (Fig. 29). In posterior view there are median and lateral plates (Fig. 30). The sclerites in posterior view of the epigynum are diagnostic for many species.

The palpus is similar to that of Para-

wixia (Levi, 1992, figs. 7, 8). It has a large conductor, to which is attached the paramedian apophysis. The paramedian apophysis is of characteristic shape, usually rounded at its distal end with parallel sides. In *O. subrufa* (Fig. 46), it is a flat,

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rectangular extension of the conductor. In *O. rufa* (Fig. 69) and *O. potosi* (Fig. 75) it is shoe-shaped, and in others it is a long, tapering, pointed structure (*gulielmi* Fig. 241, *anta* Fig. 262, *jacara* Fig. 364, *co-maina* Fig. 367, *heredia* Fig. 369, *albo-punctata* Fig. 378, *herrera* Fig. 391, *co-villei* Fig. 402). In two species the paramedian apophysis is a gutter, a repository for the embolus (*abiseo* Fig. 319, *tinajillas* Fig. 327). In most species there is an outgrowth from the radix toward the embolus and the paramedian apophysis, barely visible in some, prominent in others (*yaelae* Fig. 359, *jacara* Fig. 364, *albo-punctata* Fig. 377, *vie jo* Fig. 385). Both

the paramedian apophysis and the radix outgrowth seem to support the embolus.

The median apophysis is always large, often distally forked, and its insertion into the radix is less modified than that of *Parawixia* and *Wagneriana* species. The embolus is short and scale-like, or pointed, except in *O. magdalena* (Fig. 338), which has a long embolus. Emboli are generally similar in related species. Beyond the embolus is a tripartite structure (Fig. 46).

While one can call the part closest to the embolus the embolar lamella and the most distal, the terminal apophysis, these parts are difficult to homologize with similar parts in other araneids. The outgrowth of the radix is an autapomorphy. The *O. albopunctata* and *O. viejo* embolus has a large, scale-like structure (Fig. 379) that is transferred to the female when mating, and once in the epigynum (on left in Figs. 372, 373) the scale is difficult to remove.

Other species may have a similar, less conspicuous, structure.

Many species with a narrow cephalic region also lack the posterior median eye swelling, have an oval or shield-shaped abdomen, a tapering, pointed paramedian

apophysis, and a prominent radix outgrowth. However, there is also considerable overlap: not all species with a narrow cephalic region have posterior median eyes facing "up." Other species have a pointed paramedian apophysis, and the outgrowth

from the radix, though less distinct, is found in yet other species.

Relationships. The position of the posterior median eyes, their placement on a slight swelling with the eyes facing sideways to forward is a character shared by the species of the three genera, *Wixia*, *Pozonia*, and *Ocrepeira*. This character is also found in some *Paraicixia* and in *Acacesia* and is believed a synapomorphy of these groups. In some species of unrelated genera (e.g., *Eustala*) the posterior median eyes are similarly placed, and in several species of *Ocrepeira* it appears this peculiar placement of eyes has been secondarily lost. The position of the posterior median eyes, the abdomen shape, and the pointed paramedian apophyses are synapomorphies of *Ocrepeira* and related genera. The outgrowth of the radix is an autapomorphy

of *Ocrepeira*.

Natural History. Stowe (1978) described a specialized scaffold-like, reduced web for *Ocrepeira ectypa*. This observation may have been an error, or the observation of a temporary day-time web.

All the specimens collected with web notes in vials indicated that the spider had made a complete orb web; the orb is nearly vertical.

Ocrepeira solidito (no. 1139) and *O. atuncela* (no. 173) have a fine-meshed orb with the hub closed; *O. lapeza* (no. 1491) and *O. planada* (no. 3347, 3358) have a loose mesh with a wide central hole (Plate 1); they build the orbs at night and the spider rests in the hub face down (Eberhard, voucher numbers of specimens in MCZ and personal communication).

Distribution. Most species are Neotropical and many species come from high elevations in the Andes (Map 3). The Andean species, many isolated from each other, may be very localized and of limited distribution. Species occurring north of Mexico (see Levi, 1976) are *O. globosa*, *O.*

redempta (see Levi, 1976), *Ocrepeira ec-*
typa (Walckenaer, 1841), and *Ocrepeira*
georgia (Levi, 1976), NEW COMBINA-
TION.

[Begin Page: Plate 1, Page 67]

Wixia, Pozonia, and *Ocrepeira* • Levi 67

Plate 1 . Left, *Ocrepeira atuncela*, horizontal diameter of orb 24 cm. Right, *O. lapeza*, horizontal diameter of orb 1
8.6 cm (photo,

W. Eberhard).

Keys. The keys were more difficult to 4 (!<
construct than those for species of other
genera. Most species are relatively uncom-
mon and few specimens were available.
Often, the variability of color patterns or
tubercles is unknown. The availability of
these features would have simplified the
key.

5(4).

6(5).

Key to Females of Ocrepeira Species

1. Abdomen with many humps evenly distributed (Figs. 51, 104, 140) 2

Abdomen with only a pair of anterior tubercles or humps, sometimes an anterior median tubercle (Figs. 39, 44, 63, 332) 4

2(1). Epigynum as in Figures 137-139; Ar- 7(6).

gentina (Map 5) mastophoroides

Epigynum as in Figures 48, 101; Mexico and Central America 3

3(2). Epigynum pointed posteriorly in ventral 8(7).

view (Fig. 101); Panama (Map 4) arturi

Epigynum rounded posteriorly in ventral view (Fig. 48); Mexico to Panama (Map 4) rufa

Epigynum (base and scape) in ventral and posterior views as long as wide or wider than long (Figs. 71, 72, 302, 303, 322, 323, 340, 341, 372, 373) 5

Epigynum (base and scape) longer than wide in ventral and posterior views (Figs. 160, 161, 167, 168) 19

Scape forming a lobe of posterior margin of base (Figs. 36, 37, 41, 42, 52, 53, 340, 341) 15

Scape set off from base (Figs. 257, 264, 278, 372, 403) 6

Scape originating at anterior of base (Figs. 372, 375), posterior view of epigynum as in Figure 373; Guyana, Amazon area (Map 6) albopunctata

Scape originating on ventral face or posterior of base (Figs. 257, 264, 278, 302, 403) 7

Scape longer than wide (Figs. 264, 272, 302) 1 1

Scape as long as or shorter than wide (Figs. 257, 308) 8

In posterior view of epigynum lateral plates touch dorsally (bottom of Fig.

258); Colombia (Map 5) anta

In posterior view lateral plates separated

(Figs. 309, 316); Peru 9

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Map 3. Approximate number of *Ocrepeira* species in different areas.

9(8). In posterior view median plate overhanging lateral plates (Fig. 404) sorota

In posterior view lateral plates overhanging medians (Figs. 309, 316); Bolivia (Map 6) 10

10(9). Posterior area of base, behind scape, depressed (Figs. 308, 309); (Map 6) cuy

Posterior area of base otherwise (Figs. 315, 316); (Map 6) ... abiseo

11(7). Dorsum of abdomen with pairs of black

spots having light rings (Fig. 305); Colombian Andes (Map 6) saladito

Dorsum of abdomen without such spots 12
12(1 1). Posterior median plate of epigynum subdivided into anterior and posterior plates, anterior one with a median longitudinal groove (Fig. 265); Peru (Map

6) ba rba ra

Posterior median plate otherwise (Figs.

273, 279, 323) 13

13(12). Posterior median plate circular (Fig. 273);

Ecuador (Map 6) tungurahua

Posterior median plate with parallel sides (Fig. 279) or with median constriction

(Fig. 323) 14

14(13). Posterior median plate with sides parallel (Fig. 279); Colombian Andes (Map

6) valderramai

Posterior median plate constricted (Fig.

323); Ecuador (Map 6) tinajillas

15(5). Posterior median plate of epigynum

much wider than long (Figs. 37, 42) 16

Posterior median plate longer than wide

(Figs. 53, 72, 341) 17

16(15). Epigynum in ventral view with a trans-

verse depression (Fig. 36); posterior

median plate trapezoidal (Fig. 37);

Mexico (Map 4) globosa

Ventral view of epigynum convex (Fig.

41); posterior median plate dorsally

rounded, lateral plates extending dor-

sally beyond median plate (Fig. 42);

Mexico, Guatemala (Map 4) subrufa

17(15). Jamaica (Map 4); epigynum as in Figures

71-73 branta

Mexico, Central and South America 18

18(17). Colombia, epigynum with a small lobe

(Figs. 340-342); Colombia (Map 6) ...

lapeza

Mexico to Panama (Map 4), epigynum

with wide lobe (Figs. 48-50, 52-54,

56-58, 60-62, 64-66) ... rufa

19(4). Abdomen oval with indistinct humps and

without dorsal folium or transverse

streaks (Figs. 390, 399), sometimes with

dark dorsal patch (Fig. 400) 20

Abdomen with a pair of humps or tu-

bercles or with dorsal folium or streak

markings 22

20(19). Posterior median plate triangular and

with granulated surface (Fig. 388); Pe-

ruvian Amazon (Map 6) herrera

Posterior median plate with a constrict-

tion or with sides parallel (Figs. 95,

393) 2 1

21(20). Epigynum with long scape as in Figures 392, 395, 397; Central America to Amazon area (Map 6) covillei

Epigynum with short scape as in Figure 94; Bahia to Parana States, Brazil (Map 5) ca maca

22(19). Abdomen dorso-anteriorly dark, dark area sharply demarcated at a line extending between tubercles, posterior without folium, sometimes with a dark patch (Figs. 183, 384) 23

Abdomen marked otherwise 34

23(22). Anterior dark area of abdomen covering anterior pair of muscle scars (Figs. 183, 189, 208) 24

Anterior pair of muscle scars outside the dark area (Figs. 148, 150, 337) 28

24(23). Scape laterally flattened or torn off (Figs. 193, 195, 206) 25

Scape otherwise 26

25(24). In posterior view scape (or scar) touching
median plate (Fig. 206); Mato Grosso

State, Brazil (Map 5) gima

In posterior view scape some distance
from median plate (Fig. 195); Brazil,
Paraguay (Map 5) fiebrigi

26(24). Sides of scape with median swelling (Fig.

180); southern Brazil (Map 5) malleri

Sides of scape almost parallel (Figs. 186,
20 1) 27

27(26). Length of epigynum and scape less than

[Begin Page: Map 4, Page 69]

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Map 4. Distribution of *Ocrepeira* species.

1.5 times its width (Fig. 200); Bolivia,

N. Argentina (Map 5) *molle*

Length of epigynum more than twice its width (Fig. 186); Sao Paulo State, Brazil to Buenos Aires Prov., Argentina

(Map 5) *galianoae*

28(23). *Hispaniola* (Map 6), epigynum as in Figures 329-331 *darlingtoni*

Central and South America; epigynum otherwise 29

29(28). Epigynum large and flat as in Figures

360-362; Peru (Map 6) *duocypha*

Epigynum otherwise (Figs. 143, 354, 380) 30

30(29). Scape with parallel sides (Figs. 354, 380) 31

Scape tapering or rounded (Figs. 143,

334, 348) 32

31(30). Scape smooth, posterior view of epigyn-

um as in Figure 381; Central America,

Venezuela to Peru (Map 6) vie jo

Scape wrinkled, posterior view of epi-

[Begin Page: Map 5, Page 70]

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Map 5. Distribution of *Ocrepeira* species.

gynum as in Figure 355; Ecuador (Map

6) *yaelae*

32(30). Epigynum in posterior view with deep

pit at ventral end of median plate

(center of Fig. 349); Venezuela, Co-

lombia, and Amazon area (Map 6)

maraca

Epigynum without pit (Figs. 144, 335) 33

33(32). Sides of scape convex (Fig. 334)

magdalena

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Sides of scape concave (Fig. 143); Minas
Gerais State, Brazil to Chile (Map 5)

venustula

34(22). Origin of scape on ventral surface of base
as in Figures 236, 238, 243, 245, 297,

299 35

Base gradually narrowing posteriorly into

a scape (Figs. 143, 146, 167, 212) 40

35(34). Lateral plates of epigynum in posterior

view touching (Figs' 244, 250, 298) 36

Lateral plates separated by the median

plate (Figs. 237, 254, 291) 38

36(35). Tubercles of abdomen directed anteriorly (Figs. 246, 252) 37

Tubercles of abdomen directed laterally

(Fig. 300); Colombia (Map 6) *ituango*

37(36). Lateral plates of epigynum with median, dorsal projections (Fig. 244); Amazon

area, Venezuela (Map 5) *steineri*

Lateral plates without such projections

(Fig. 250); northeastern Brazil (Map

5) *macaiba*

38(35). Posterior lateral plates of epigynum (and base) having a lateral anterior-posterior groove (Figs. 237, 238); Colombia,

Ecuador (Map 5) *gulielmi*

Base and lateral plates without groove

(Figs. 254, 255, 291, 292) 39

39(38). Abdomen with anterior median tubercle

(Fig. 256); sides of posterior median

plate parallel (Fig. 254); Colombia

(Map 5) atuncela

Abdomen without median anterior tu-

bercle (Fig. 293) sides of posterior me-

dian plate convex (Fig. 291); Colom-

bia, Ecuador (Map 6) planada

40(34). Epigynum triangular (Fig. 114); poste-

rior median plate bottle-shaped (Fig.

115); Cuba (Map 4) incerta

Epigynum otherwise 41

41(40). Tubercles of abdomen pointing anteri-

orly (Figs. 177, 228, 235) 42

Tubercles or humps of abdomen point-

ing laterally (Figs. 122, 129, 151) 46

42(41). Posterior base of epigynum grading into

broad lobe with median, longitudinal

groove (Figs. 174, 218) 44

Scape set off from base of epigynum

(Figs. 224, 232); Brazil 43

43(42). Posterior lateral plates separated by median plate (Fig. 225); Sao Paulo to Rio Grande do Sul States, Brazil (Map 5)

gnomo

Posterior lateral plates overlapping (Fig. 233); Rio de Janeiro to Rio Grande do

Sul States, Brazil (Map 5) lisei

44(42). Posterior lateral plates touching as in Figure 213; Parana, Rio Grande do Sul

States, Brazil (Map 5) pinhal

Posterior lateral plates separated by a median plate (Figs. 175, 219) 45

45(44). Posterior median plate triangular (Fig.

175); Colombia, Ecuador (Map 5)

tutnida

Posterior median plate constricted in
middle (Fig. 219); Mato Grosso, Goias
States, Brazil (Map 5) *bispinosa*

46(41). Scape slightly swollen above tip (Figs.
131, 133); Minas Gerais State, Brazil

(Map 5) *klossi*

Scape not swollen (Figs. 119, 126, 167) 47

47(46). Epigynum subtriangular, lobe with a
pocket (Fig. 126); Costa Rica (Map 4)

hondura

Epigynum otherwise (Figs. 88, 143, 160,
167) 48

48(47). Posterior of epigynum with a wide, deep
depression behind scape (Fig. 168);

Panama (Map 4) *willisi*

Epigynum without such a depression, or
with a narrow pit (Figs. 120, 144, 161) 49

49(48). Abdomen with a pair of white squares
their diameter apart on underside (Fig.

82); West Indies (Map 4) serrallesi

Abdomen otherwise or with a pair of
white spots (Fig. 164) 50

50(49). Mexico (Map 4); epigynum as in Figures

88-90 redempta

South America 51

51(50). Ventral view of epigynum with a bulge
on each side, scape behind bulge hard-
ly longer than length of base above
bulge (Figs. 119-121); southern Brazil,
Paraguay, northern Argentina (Map 5)

hirsnta

No bulges on sides of epigynum (Fig.
160), or if bulges, scape behind bulge
longer than length of base (Fig. 143) 52

52(51). Posterior median plate vase-shaped (Fig.
161); Bolivia to Buenos Aires Prov.,

Argentina (Map 5) Itirida

- Sides of posterior median plate almost parallel, sometimes slightly constricted (Figs. 144, 146); Minas Gerais, Brazil to Chile (Map 5) *venustula*

Key to Males of *Ocrepeira* Species

Ocrepeira verecunda from Colombia (Figs. 155, 156) is not included in the key.

1. Median apophysis of palpus (Figs. 32, 33,

M in 46, 47) with two prongs of equal length or "lower" one longer than "upper." Length of one of the prongs at least one quarter length of median apophysis (Figs. 223, 231, 242, 248, 263, 270, 277, 283, 288, 296, 306, 307, 314, 320, 328, 333) 2

Median apophysis with one prong or "lower" one much shorter than "upper" (Figs. 46, 47, 100, 109), or prongs very short or absent (Figs. 285, 353) 16

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2(1). West Indies (Map 6); palpus as in Figure 17(16).

333 darlingtoni

South America; palpus otherwise 3

3(2). Palpus as in Figures 247. 248; Amazon

area, Venezuela (Map 5) steineri 18(17).

Palpus otherwise; Andes to Brazil 4

4(3). Brazil 5

Andes 6

5(4). Base of median apophysis with two par- 19(18).

allel lengthwise, curved ridges (Figs.

230, 231); Sao Paulo to Rio Grande do

Sul States (Map 5) gnomo

Base of median apophysis with one "ver-

tical" ridge (Figs. 222, 223); Mato

Grosso, Goias States (Map 5) *bispinosa*

6(4). Palpus in ventral view with lower prong 20(19).

about twice as long as upper prong

(Figs. 287, 288, 306, 307) 7

Prongs of more equal length (Figs. 262,

263, 277, 319, 320, 327, 328) 8

7(6). "Upper" prong short, blunt (Figs. 306, 21(20).

307); Colombia (Map 6) *saladito*

"Upper" prong long, acute (Figs. 287,

288); Peru (Map 6) ... *pista*

8(6). "Upper" prong at its origin wider than

"lower" prong; palpus as in Figures 22(21).

262, 263; Colombia (Map 5) *anta*

Prongs of equal width or "lower" prong

wider (Figs. 242, 270, 277, 283, 296, 23(22).

314, 319, 328) 9

9(8). "Lower" edge of median apophysis with

a proximal bulge (Figs. 313, 319, 327) 10

"Lower" edge of median apophysis 24(23).

without bulge (Figs. 241, 269, 276, 282,

295) 1 2

10(9). Base of median apophysis with a semi- 25(24).

circular offset (Fig. 313); Peru cuy

Base of median apophysis otherwise (Figs.

319, 327) 11

11(10). Base of median apophysis with a trian- 26(20).

gular offset (Fig. 319) abiseo

Base of median apophysis with little

sculpturing (Fig. 327) tinajillas

12(9). Base of median apophysis with a semi-

circular offset (Figs. 276, 295) 13

Base of median apophysis otherwise (Figs.

241, 269, 282) 14 27(26).

13(12). Prongs of median apophysis long (Figs.

295, 296) planada

Prongs of median apophysis short (Figs.

276, 277) tungurahua 28(27).

141 12). Base of median apophysis with a triangular offset (Fig. 282) ... valderramai

Base of median apophysis otherwise (Figs.

241, 269) 15 29(28).

151 4). Base of median apophysis with boomerang-shaped offset (Fig. 269) macintyreii

Base of median apophysis with a "diagonal" ridge (Fig. 241) gulielmi

16(1). Median apophysis "higher" than long as

in Figures 338, 339; northern Colombia (Map 6) magdalena 31(29).

Median apophysis otherwise (Figs. 184,

284, 352) 1 7

Embolus thread-shaped (Fig. 216); Peru
(Map 6) maltana

Embolus various shapes, never thread-
shaped 18

Median apophysis with a narrow neck
and dark round spot in its base (Fig.
359); Ecuador (Map 6) yaelae

Median apophysis otherwise 19

Terminal apophysis surrounding minute
conductor; terminal apophysis in sub-
mesal view larger than conductor (Fig.
385); Central and South America (Map
6) vie jo

Terminal apophysis and conductor oth-
erwise 20

Median apophysis with a distal notch
(Figs. 210, 285, 353, 365, 369, 370,
377, 378) 2 1

Median apophysis without notch (Figs.

47, 93, 141) 26

Distal notch of median apophysis narrow
and with parallel sides (Fig. 285); Ec-
uador (Map 6) jamora

Distal notch shallow or triangular (Figs.
210, 353, 378) 22

Palpus as in Figures 369, 370; Central
America (Map 6) heredia

Palpus otherwise 23

Terminal apophysis large and overhang-
ing conductor as in Figures 210, 211
gima

Terminal apophysis otherwise 24

Terminal apophysis small and pointed as
in Figure 352 maraca

Terminal apophysis otherwise 25

Terminal apophysis surrounding con-
ductor as in Figures 364, 365 jacara

Terminal apophysis pincer-shaped as in

Figure 377 albopunctata

Median apophysis having a long tube-shaped (with parallel sides) pointed projection or two with "upper" one longer (Figs. 47, 70, 76, 87, 93, 100, 107, 109, 112, 306, 307) 27

Median apophysis otherwise (Figs. 141, 142, 172, 173) 36

Palpus as in Figures 99, 100; Parana State, Brazil (Map 5) camaca

Palpus otherwise; Colombia, Mexico, Central America, West Indies 28

Palpus as in Figures 306, 307; Colombia saladito

Palpus otherwise; Mexico, Central America, West Indies 29

Paramedian apophysis shoe-shaped (Figs. 69, 75) 30

Paramedian apophysis otherwise 31

Prong of median apophysis thick as in
Figures 69, 70 (Map 4) rufa

Prong thin and curved "up" as in Figures
75, 76; Mexico (Map 4) potosi

Prong of median apophysis with a distal
bend as in Figures 111, 112; Mexico
(Map 4) yucatan

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Map 6. Distribution of Ocrepeira species.

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Prong evenly curved (Figs. 47, 87, 93,
107, 109) 32

32(31). Prong relatively short, about three times
as long as wide (Fig. 47); paramedian
apophysis rectangular (PM in Fig. 47);

Mexico, Central America (Map 4)

subrufa

Prong much longer and paramedian

apophysis otherwise (Figs. 76, 93, 107,

109) 33

33(32). Base of median apophysis with an offset

area the shape of a semicircle (Fig. 93);

Mexico, Guatemala (Map 4) redempta

Base of median apophysis otherwise 34

34(33). Base of median apophysis with a large

offset area the shape of a tooth (Fig.

87); West Indies (Map 4) serrallesi

Base of median apophysis otherwise 35

35(34). Terminal apophysis distally forked as in

Figure 106; Panama (Map 4) arturi

Terminal apophysis distally pointed as

in Figure 108; Mexico (Map 4) pedregal

36(26). Median apophysis short and in submesal view surrounded by the tegulum as in

Figure 391; Peru (Map 6) *herrera*

Median apophysis longer (Figs. 124, 135, 184, 190, 198) 37

37(36). Median apophysis in ventral view distally with a bulge or keel "above," beyond the tegulum (Figs. 124, 125, 135, 136, 184, 185, 190, 191, 198, 199,

204) 38

Median apophysis without bulge or keel (Figs. 142, 153, 158, 166, 179, 211, 346, 386) 43

38(37). Terminal apophysis overhanging conductor (Figs. 124, 190) 39

Terminal apophysis not reaching "top" of conductor (Figs. 135, 184, 198) 40

39(38). Terminal apophysis distally rounded, and median apophysis short (Fig. 124); Sao Paulo State, Brazil, Paraguay, northern Argentina (Map 5) *hirsuta*

Terminal apophysis pointed, median
apophysis long (Fig. 190); Sao Paulo
State, Brazil to Buenos Aires Prov., Ar-
gentina (Map 5) *galianoae*

40(38). Bulge on "upper" margin of median
apophysis evenly rounded (Figs. 136,

185) __ _ 42

Bulge on "upper" margin pointed or keel-
shaped (Figs. 199, 204) 41

41(40) Bulge on "upper" surface of median
apophysis keel-shaped (Figs. 198, 199);
Amazon to Rio Grande do Sul State,

Brazil (Map 5) *fiebrigi*

Bulge on "upper" margin pointed (Fig.
204); Bolivia, Argentina (Map 5) *molle*

42(40). Median apophysis wide and terminal

apophysis as in Figure 184 *malleri*

Median apophysis narrow and terminal

apophysis as in Figure 135; Minas Ge-

rais State, Brazil (Map 5) klossi

43(37). Terminal apophysis strongly curved and pointed overhanging the conductor as in Figure 210; Mato Grosso State, Brazil (Map 5) gima

Terminal apophysis otherwise 44

44(43). Terminal apophysis surrounding small conductor as in Figure 385; Costa Rica (Map 6) vie jo

Terminal apophysis and conductor otherwise 45

45(44). Terminal apophysis small, cone-shaped as in Figure 367; Peru comaina

Terminal apophysis otherwise 46

46(45). Terminal apophysis reaching "top" of conductor or overhanging conductor (Figs. 141, 152, 157, 165, 172, 178, 345) 47

Terminal apophysis barely touching con-
ductor (Figs. 198, 367, 369, 402) 53

47(46). Distal part of terminal apophysis trian-
gular as in Figure 345; Venezuela (Map
6) aragua

Terminal apophysis otherwise 48

48(47). Tip of terminal apophysis with upper
edge straight as in Figure 172; Panama
(Map 4) willisi

Tip of terminal apophysis with upper
edge curved and pointing to median
apophysis (Figs. 141, 152, 157, 165,

178) 49

49(48). Abdomen with about 14 tubercles (Fig.

140); Argentina (Map 5) mastophoroides

Abdomen with only an anterior pair of

tubercles or humps 50

50(49). Median apophysis with neck, widening

towards tip (Figs. 178, 179); Colombia,
Ecuador (Map 5) tumida

Median apophysis otherwise 51

51(50). Median apophysis distally blunt (Figs.
157, 158); Colombia, Ecuador (Map 5)
redondo

Median apophysis distally pointed (Figs.

153, 166); Brazil, Argentina 52

52(51). Overhanging portion of terminal apoph-
ysis wide as in Figure 152; Minas Ge-

rais State, Brazil to Chile (Map 5)

vennstula

Overhanging portion of terminal apoph-
ysis narrow as in Figure 165; Bolivia
to Buenos Aires Prov., Argentina (Map

5) lurida

53(46). Distal end of terminal apophysis with

shallow notch (Figs. 369, 402) 54

Distal end of terminal apophysis pointed

(Figs. 198, 345, 367) 55

54(53). Distal end of median apophysis prong
slightly wider than section immedi-

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ately below and prong fairly straight

(Fig. 369); Costa Rica (Map 6) heredia

Median apophysis with an even taper

and bent "up" (Fig. 402); Costa Rica

to Amazon area (Map 6) covillei

55(53). Conductor extending above and beyond

terminal apophysis (Fig. 198); Ama-

zon to Rio Grande do Sul State, Brazil

and Paraguay (Map 5) fiebrigi

Conductor and terminal apophysis tips

touching (Fig. 345); Venezuela (Map

6) aragua

Ocrepeira globosa (F. P. -Cambridge),

new combination

Figures 36-40; Map 4

Wixia globosa F. P.-Cambridge, 1904: 486, pi. 46, fig. 4, 9. Female holotype from Tepetlapa, Guerrero State, Mexico, in BMNH no. 1905.4.28.2811, examined. Roewer, 1942: 882. Bonnet, 1959: 4829. Levi, 1976: 382, figs. 116-120, 2 (not figs. 112, 121, 122, 3).

Note. The male for *globosa* is unknown.

Levi (1976) matched the male of *rufa* with *globosa* and matched the male of *clivosa* with *rufa* on the basis of a dorsal abdominal pattern. But now I find the pattern variable, and am uncertain if the match was correct.

Description. Female from Baja California Sur, Mexico. Cephalic region streaked gray and black on orange, eye tubercle and sides of thoracic region orange. Chelicerae light orange. Labium, endites brown. Sternum dusky orange underlain by white pigment. Coxae light orange; legs dusky or-

ange with indistinct dark rings. Dorsum of abdomen with posterior paired curved black marks (Fig. 39); venter light dusky without marks. Posterior median eyes 1.3 diameters of anterior medians, laterals 0.6 diameter. Anterior median eyes 1.3 diameters apart. Posterior median eyes 2 diameters apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 2 diameters of anterior median eyes. Abdomen oval, with large cone-shaped, forward-pointing tubercles (Fig.

39). Total length 6.6 mm. Carapace 3.0 mm long, 2.7 wide, behind lateral eyes 1.6 wide. First femur 3.0 mm, patella and tibia 3.6, metatarsus 2.2, tarsus 0.7. Second patella and tibia 3.4 mm, third 2.1, fourth 3.4.

Variation. No two epigyna are alike.

They vary in the shape of the outline and the extent of the ventral depression (Levi, 1976, figs 116-118; Figs. 36-38). However, all have the wide convex median plate in posterior view (Fig. 37) and a thin ventral posterior lip (Fig. 38). Total length of females 5.0 to 7.8 mm. Figures 36-38 were made from a female from Baja California

Sur.

Diagnosis. As in *O. rufa*, all females of *O. globosa* have the clypeus height about equal to 2 diameters of the anterior median eyes, higher than that of most other species. The ventral depression of the epigynum (Fig. 36) and the shape of the posterior median plate (Fig. 37) separate *O. globosa* from *O. subrufa* (Figs. 41, 42).

Specimens Examined. UNITED

STATES KANSAS Bourbon Co: Redfield, 15 Oct. 1963, 9 (W., J. Ivie, AMNH). TEXAS Dallas Co: Dallas, 9, Whire Creek, Dallas, 9 (both S. Jones, MCZ). ARIZONA Cochise Co: South Fork, Cave Creek, Chiricahua Mts., 11 Sept. 1950, 9 (W. J. Gertsch, AMNH). MEXICO Sonora: N end of Sierra de los Ajos, head Canyon de Evans, 28 Aug. 1970, 9 (V. Roth, AMNH). Baja California Sur: Sierra de la Laguna, Canon de la Zorra, 840 m, Paso de Cecilia Selva, 9 (M. L. Jimenez, MLJ). Durango: Palos Colorado, 5 Aug. 1947, 9 (W. J. Gertsch, AMNH).

Ocrepeira subrufa (F. P.-Cambridge),

new combination

Figures 41-47; Map 4

Wixia subrufa F. P.-Cambridge, 1904: 486, pi. 46,
fig. 6, 9. Female holotype from Chiacam [Depto.
Alta Verapaz, 26 km E of Coban, 700 m, 15°34'N,
90°06'W, old coffee plantation], Guatemala, in

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BMNH, 1904: 486, examined. Roewer, 1942: 882.

Bonnet, 1959: 4830.

Wixia sicula F. P.-Cambridge, 1904: 487, pi. 46, fig.

8, <5. Male holotype from Teapa, Tabasco State,

Mexico, in BMNH no. 1905.4.28.2818, examined.

Roewer, 1942: 882. Bonnet, 1959: 4830. NEW SYN-

ONYMY.

Wixia vulcani Kraus, 1955: 25, pi. 4, figs. 72-74, 2.

Female holotype from top of San Salvador Volcano,

1,965 m, El Salvador, in SMF, not examined. Brig-

noli, 1983: 281. NEW SYNONYMY.

Synonymy. The holotype of *W. subrufa*

is damaged by insect pin holes. F. P.-Cambridge did not consider *W. sicula* and *W. siibrufa* as belonging together, presumably because they came from different localities and had different dorsal markings. In 1976, I thought erroneously that because of dorsal markings the *sicula* male must belong to *W. rufa* and the male of *W. clivosa* to *W. globosa* (Levi, 1976).

The illustration for *W. vulcani* shows the characteristic features of *O. subrufa*.

Description. Female from Sacatepequez, Antigua, Guatemala. Carapace dark orange-brown with some white setae, sides of thoracic region darkest. Chelicerae, labium, endites orange-brown. Sternum dark orange-brown. Coxae dark orange; legs orange-brown with darker rings and patches. Dorsum of abdomen blackish brown anteriorly; posterior with some transverse dark bars; a light line between dark and light areas, and some scattered long black hairs (Fig. 44); venter black with two discrete white spots (Fig. 45). Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior

median eyes their diameter apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to one diameter of anterior median eyes. Abdomen with tubercles directed toward sides (Fig. 44). Total length 7.7 mm. Carapace 3.7 mm long, 3.1 wide, 1.8 wide behind lateral eyes. First femur 3.5 mm, patella and tibia 4.4, metatarsus 2.8, tarsus 1.0. Second patella and tibia 4.0 mm, third 2.7, fourth 3.9.

Male holotype of *W. sicula*. Color as in female, but sternum yellow with brown border and abdomen dorsum with a white anterior cardiac mark. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes slightly more than their diameter apart. Posterior median eyes 1.5 diameters apart. Height of clypeus equal to 0.9 diameter of anterior median eye. Third coxa with two macrosetae on right, one on left, fourth with one macroseta. Fourth trochanter with one macroseta. Total length 4.0 mm. Carapace 2.9 mm long, 2.4 wide. First femur 3.1 mm, patella and tibia 3.6, metatarsus

2.1, tarsus 0.9. Second patella and tibia 2.9 mm, third 1.9, fourth 2.5.

Note. The male was matched with the female because of similar ventral markings on the abdomen (Fig. 45). One collection has males and females together.

Variation. Total length of females 6.2 to 9.0 mm, of males 4.0 to 6.4. The male from Guatemala had the ocular quadrangle slightly narrower behind than in front and the carapace 2.7 mm wide, 1.7 behind

Figures 27-35. *Ocrepeira* morphology. 27-31, female *O. venustula* (Chile). 27, carapace. 28, eye region and clypeus. 29-31,

epigynum. 29, ventral. 30, posterior. 31, lateral. 32, 33, male *O. venustula* (Chile), left palpus pulled apart. 34, 35, male *O.*

serrallesi. 34, left coxae. 35, left second tibia, ventral.

Figures 36-40. *O. globosa* (F. P.-Cambridge), female. 36-38, epigynum. 36, ventral. 37, posterior. 38, lateral. 39, dorsal. 40,

lateral.

Figures 41-47. *O. subrufa* (F. P.-Cambridge). 41-45, female. 41-43, epigynum. 41, ventral. 42, posterior. 43, lateral. 44, dorsal.

45, abdomen, ventral. 46, 47, male palpus.

Abbreviations. A, terminal apophysis; C, conductor; M, median apophysis; PM, paramedian apophysis; T, tegulum.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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lateral eyes. Figures 41-44 were made from specimens from Sacatepequez, Guatemala, and Figures 46, 47 from the holotype of *W. sicula*.

Diagnosis. The female can be separated from that of *O. globosa* (Figs. 36-38) by the sclerotized convex median and lateral plates of the epigynum in posterior view (Fig. 42). The male is separated from others, including *O. rufa* (Figs. 69-70), by the shape of the median apophysis, and both sexes from *O. globosa* and *O. rufa* in the region by the ventral white spots on black (Fig. 45) on the abdomen.

Natural History. A female was collected in a cloud forest in Chiapas, another in live-oak foliage in Metaquesquitla, Guatemala.

Specimens Examined. MEXICO Chiapas: Chiapas-Oaxaca border, 21 km W Rizo del Oro, along ridge of Cerro Baul, 1,615 m, 6 Sept. 1972, 9 (C. Mullinex, CAS).

GUATEMALA Jalapa: Mataquesquitla, El Carrizal, 10 Aug. 1982, 9, 7 imm. (Fendrenkes, DU). Sacatepequez: Antigua, Oct.

1965, 9 (N. L. H. Krauss, AMNH); Antigua, 16, 17 Aug. 1947, 3 (C. P. Vaurie, AMNH).

Quiche: Nebaj, 9, 10 Aug. 1947, 29, S (C. P. Vaurie, AMNH). PANAMA Chiriqui:

El Volcan, 9-14 Aug, 1950, 9 (A. M. Chickering, MCZ).

Ocrepeira rufa (O. P.-Cambridge),

new combination

Figures 48-70; Map 4

Epeira rufa O. P.-Cambridge, 1889: 35, pi. 6, fig. 18,

2. Female leetotype here designated from between

El Peten [Depto. El Peten] and Chieoyoito [Chieoyoi, 15°23'N, 90°21'W], Guatemala, in BMNH

no. 1905.4.28.2812-15, examined. Keyserling, 1892:

120, pi. 6, fig. 88, 9.

Epeira consequa: — O. P.-Cambridge, 1889: 36.

Epeira dstricta: — O. P.-Cambridge, 1889, pi. 4, fig.

14, 9 (not male holotype, fig. 13). Illustrations to go

with *Epeira consequa*.

Amamra bituberosa O. P.-Cambridge, 1889: 55, pi.

3, fig. 11, 9. Female holotype from Costa Rica, in

BMNH, examined. Keyserling, 1892: 45, pi. 2, fig.

27, 9. NEW SYNONYMY.

Amamra gibbifera O. P.-Cambridge, 1894: 137, pi.

18, fig. 10, 9. Two female syntypes from Guerrero,

Mexico in BMNH, examined. NEW SYNONYMY.

?*Amamra turrigera* O. P.-Cambridge, 1898: 251, pi.

31, fig. 6. Immature holotype from Chilpancingo,

Guerrero State, Mexico, in BMNH, examined. NEW

DOUBTFUL SYNONYMY.

Amamra clivosa O. P.-Cambridge, 1898: 270, pi. 36,

figs. 1, 2, 9, 8. Female holotype from Amula, Guer-

rero State, between Tixtla and Chilapa, 6,000 ft

[2,000 m], Mexico, in BMNH, examined. NEW

SYNONYMY.

Wixia bituberosa: — F. P.-Cambridge, 1904: 485.

Wixia gibbifera:— F. P.-Cambridge, 1904: 882.

Roewer, 1942: 882. Bonnet, 1959: 4829.

Wixia clivosa: — F. P.-Cambridge, 1904: 485, p. 46,
fig. 2, 9.

Wixia turrigera: — F. P.-Cambridge, 1904: 486, pi.
46, fig. 7, imm. Roewer, 1942: 882. Bonnet, 1959:
4830.

Wixia rufa:—¥. P.-Cambridge, 1904: 486, pi. 46, fig.
5, 9.

Aranea consequa: — F. P.-Cambridge, 1904: 518.

Wixia globosa:— Levi, 1976: 382, figs. 121, 122, 6
only, not 9.

Synonymy. The illustrations associated
with *Epeira consequa* by O. P.-Cambridge
(1889) are labeled *Epeira dstricta*. The
male illustrated by O. P.-Cambridge, 1889
as *Epeira dstricta* (pi. 4, fig. 13) is the
holotype of *Parawixia dstricta*, but the
illustration of the female is *O. rufa*. The

specimen has been lost since before F. P.-
Cambridge (1904).

The holotype of *Amamra turrigera* is immature, has a wide cephalic region as do other *Ocrepeira*, lacks white spots on the venter of the abdomen, and has posterior dorsal transverse bars on the abdomen as in *O. rufa*: it also has slight bulges on the sides of the abdomen as do some *O. rufa*, and the abdomen is drawn out anteriorly and projecting as in some other immatures of the genus. I assume it is an immature *O. rufa*.

F. P.-Cambridge (1904) considered *clivosa* (Figs. 56-59) and *bituberosa* (Figs. 64-67) the same species as *O. rufa* but listed them separately. In 1976 I considered the *A. clivosa* male as belonging to the female of *Wixia globosa* because of dorsal abdominal coloration. *Amamra bituberosa* (Figs. 64-67) and *A. gibbifera* (Figs. 60-63) differ in the shape of the epigynum. They may be a separate species or, much more likely, variations of *O. rufa*.

Description. Female holotype of *Epeira*

rufa. Carapace dark brown, eye area light-

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Figures 48-70. *Ocrepeira rufa* (O. P. -Cambridge). 48-68, female. 48-50, 52-54, 56-58, 60-62, 64-66, epigynum. 48, 52, 56,

60, 64, ventral. 49, 53, 57, 61, 65, posterior. 50, 54, 58, 62, 66, lateral. 51, 55, 59, 63, 67, dorsal. 68, lateral. 48-51, lectotype

of *rufa* (Guatemala). 52-55, (Durango State, Mexico). 56-59, lectotype of *clivosa* (Guerrero State, Mexico). 60-63, syntype of

gibbifera (Guerrero State, Mexico). 64-67, holotype of *bituberosa* (Costa Rica). 68, (Sonora State, Mexico). 69-70, male left

palpus (Durango State, Mexico).

Scale lines. 1.0 mm, genitalia 0.1 mm.

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est. Chelicerae orange-brown. Labium

brown, endites orange-brown. Sternum or-

ange, border brown. Coxae grayish yellow-

brown; legs dark brown with indistinct

rings. Dorsum of abdomen well marked with posterior transverse bars whose ends bend anteriorly, sides darker with distinct margin toward dorsum (Fig. 68); venter with white pigment covered by dark. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes 2 diameters apart. Posterior median eyes slightly more than two diameters apart. Height of clypeus equal to 2 diameters of anterior median eyes. Abdomen (Fig. 51). Total length 6.5 mm. Carapace 3.2 mm long, 2.5 wide. First femur 3.0 mm, patella and tibia 3.8, metatarsus 2.2, tarsus 1.1. Second patella and tibia 3.5 mm, third 2.2, fourth 3,3.

Male from Encino, Durango, Mexico.

Carapace orange with black setae, black clypeus, and a pair of brown patches on cephalic region. Sternum orange underlain by some white pigment. Anterior of abdomen between humps with white cardiac-mark. Venter black with white on each side. Posterior median eyes same diameter as anterior medians, anterior laterals 0.6 diameter, posterior laterals 0.6. Anterior median eyes 2 diameters apart. Posterior

median eyes 3 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus 1.4 diameters of the anterior median eye. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Abdomen with two tubercles. Total length 5.2 mm. Carapace 2.9 mm long, 2.3 wide, 1.2 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 1.9, tarsus 0.7. Second patella and tibia 2.7 mm, third 1.8, fourth 2.6. Abdomen about 3.1 mm long.

Note. Males and females are the most often collected species in Mexico and both sexes have similar distribution. But I am still uncertain that they belong together.

Variation. Females are quite variable in markings, shape of the abdomen (Figs. 51, 55, 59, 63, 67), and outline of the epigynum, particularly the width of the scape (Figs. 48, 52, 56, 60, 64). The seminal receptacles were examined and illustrated but no significant differences found. A female from the State of Morelos had the ocular quadrangle wider behind than in front, the clypeus equal to 1.4 diameters

of the anterior median eyes, the carapace 2.3 wide, 1.4 wide behind lateral eyes.

Males vary in length and thickness of median apophysis, but not in the E-shaped embolus and terminal apophysis (Fig. 69).

Total length of females 6.0 to 8.2 mm, of males 4.9 to 6.2. The female and male from Durango State, Mexico, were illustrated (Figs. 52-55, 69, 70).

Diagnosis. The high clypeus and indistinct ventral markings of the abdomen are similar to those of *O. globosa* and separate both species from most others. The posterior aspect of the epigynum is similar to that of the West Indian *O. branta* and *O. serrallesi*; however, the ventral outline differs: shorter in *O. branta* (Fig. 71), longer and with a median groove in *O. serrallesi* (Figs. 78, 83-85). The male is separated from other species by the E-shaped terminal apophysis of the palpus and the shape of the median apophysis, in particular its basal, cone-shaped offset (Figs. 69, 70).

Natural History. Females were collected in pine forest in Chiapas and in oak woodland in Oaxaca.

Specimens Examined. MEXICO Nnevo
Leon: Cerro Potosi, 2,400 m, 4 June 1983,
<3 (W. Maddison, MCZ). Durango: Encino,
27 July 1947, 6 (W. J. Gertsch, AMNH);
16 km' W El Salto, 15 July 1964, 2 (J. E.
H. M., MCZ); 10 km NE El Salto, 11 Aug.
1947, 2 (W. J. Gertsch, AMNH). Nayarit:
Tepic, 22 Sept. 1953, 6 (B. Malkin, AMNH),
2 (N. Banks, MCZ). Jalisco: El Molino, 10
July 1956, 2 (R. Dreisbach, MCZ). Vera-
cruz: Orizaba, 6 July 1963, 2 (D. Bixler,
MCZ). Hidalgo: Tenango, 5 Oct. 1947, 2
(H. Wagner, AMNH). Distrito Federal:
Contreras, 2,600 m, 23 July 1947, 2 (H.
Wagner, AMNH). Puebla: Huauchinango,
7 Oct. 1947, 2 (H. Wagner, AMNH); nr.
Villa Juarez, 26 Aug. 1946, 26 (J. Good-

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night, Bordas, AMNH). Morelos: Cuer-
navaca, Aug. 1944, 9, July 1965, 9 (N. L.

H. Krauss, AMNH). Oaxaca: Monte Alban ruin, 17°02'N, 96°47'W, 5 Aug. 1983, <5 (W. Maddison, MCZ); 27 km SW Valle Nacion, 96.4°N, 17.6°W, 24 June 1983, 6, 2 imm. (W. Maddison, MCZ); 39 km NW Oaxaca, Hwy. 190, 1,700 m, 96°57'N, 17°17'W, 6 Aug. 1983, 9 (W. Maddison, R. S. Anderson, MCZ). Tabasco: Teapa, 6 (BMNH). Chiapas: Grutas de San Cristobal, 16 km SE San Cristobal, Hwy. 190, 27 July 1983, 9 (W. Maddison, MCZ); 5 km W San Cristobal de las Casas, Hwy. 190, 2,100 m, 27-28 July 1983, 9 (W. Maddison, R. S. Anderson, MCZ). COSTA RICA nr. San Jose, 9 (Valerio, MCZ).

Ocrepeira branta new species

Figures 71-74; Map 4

Holotype. Female holotype from Blue Mountains, SW side of Main Range, 3,000-4,000 ft [900-1,200 m], Jamaica, 13 Aug. 1934 (P. J. Darlington), in MCZ. The specific name is an arbitrary combination of letters.

Description. Female holotype. Carapace reddish brown with dark gray band across the carapace (Fig. 74). Chelicerae yellowish to dark brown. Labium, endites

yellowish to brown. Sternum orange, darkest on sides. Coxae yellowish; legs yellowish, ringed dusky brown. Dorsum of abdomen with white and dark marks (Fig. 74); venter black. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 2.1 diameters apart. Ocular quadrangle slightly wider than long, wider behind than in front. Height of clypeus equal to one diameter of anterior median eyes. Abdomen narrow, pointed anteriorly (Fig. 74). Total length 6.2 mm. Carapace 2.8 mm long, 2.6 wide, 1.7 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.8. Second patella and tibia 3.3 mm, third 2.1, fourth 3.1.

Diagnosis. This single specimen differs from *O. serrallesi* by the wider cephalic region, a dark band across the hairy carapace (Fig. 74), and in lacking the pair of white spots on the venter of the abdomen. The epigynum, unlike that of *O. serrallesi*, is wider than long (Figs. 71-73).

Ocrepeira potosi new species

Figures 75-77; Map 4

Holotype. Male holotype from road up to microwave tower on Cerro Potosi, 24°52'N, 100°14'W, 2,400 m, Nuevo Leon State, Mexico, 4 June 1983 (W. Maddison), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Cephalic region of carapace black; black area touches thoracic groove and has a lobe on each side of cephalic area (Fig. 77), thoracic portion orange. Chelicerae dusky orange. Labium, endites orange. Sternum yellowish underlain by some white pigment. Coxae yellowish, legs with indistinct black rings. Dorsum of abdomen spotted dark and light brown with white cardiac mark framed by black; sides with undulating black line; venter light dusky without marks. Posterior median eyes same diameter as anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.7. Anterior median eyes their diameter apart. Posterior median eyes slightly less than 2 diameters apart. Ocular quadrangle almost square, slightly wider behind than in front. Height of clypeus equal to 1.5 di-

ameters of anterior median eyes. Palpal patella with one macroseta. Third, fourth coxae each with one macroseta. Third and fourth trochanters with one macroseta. Abdomen with a pair of humps. Total length 5.7 mm. Carapace 2.9 mm long, 2.5 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.5, metatarsus 2.0, tarsus 1.1. Second patella and tibia 2.9 mm, third 1.9, fourth 2.8.

Note. One of the females cited as *O. rufa* may belong with this male.

Diagnosis. The shape of the median apophysis differs from that of *O. rufa* (Figs. 69, 70): the prong is longer (Figs. 75, 76) and there are two knobs on the "lower" edge, where the *O. rufa* male has an offset cone (Fig. 69).

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Ocrepeira serrallesi (Bryant),
new combination

Figures 78-87; Map 4

Neoscona vulgaris:— Bryant, 1940: 342; 1945: 380.

Misidentification, not *Neoscona nautica* (L. Koch).

Wixia serrallesi Bryant, 1947: 90, figs. 2, 3, 9, 6. Male

holotype and female paratype from Mona Island,

West Indies, in MCZ, examined. Brignoli, 1983:

281.

Wixia pujalsi Archer, 1958: 14, figs. 31, 32, 9. Female

holotype from Chirivico [Santiago Prov.], Cuba, in

AMNH, examined. Brignoli, 1983: 281. NEW SYN-

ONYMY

Wixia vaurieorum Archer, 1966: 131, pi. 2, fig. 10,

9. Female holotype from Hembra, Golden Grove

[?], Jamaica, in AMNH, examined. Brignoli, 1983:

281. NEW SYNONYMY.

Note. The epigyna of the types of *W.*

pujalsi (Figs. 84, 86) and *W. vaurieorum*

(Fig. 85) have a different outline, especial-

ly in ventral view. There are not enough

specimens available to decide if this is in-

dividual or geographic variation.

Numerous localities in Jamaica have the

name Golden Grove.

Description. Female paratype of *W.*

serrallesi from type locality. Carapace or-

ange-brown. Chelicerae, labium, endites

brown. Sternum orange-brown underlain

by white pigment. Coxae brown; legs dark

brown with light orange rings. Dorsum of

abdomen with black marks on gray (Fig.

81); venter black with a pair of rectangular

white spots two thirds the distance be-

tween epigynum and spinnerets (Fig. 82).

Posterior median eyes 0.9 diameter of an-

terior medians, anterior laterals 0.6 di-

ameter, posterior 0.7. Anterior median eyes

slightly less than their diameter apart. Pos-

terior median eyes 1.2 diameters apart.

Ocular quadrangle square. Height of clyp-

eus equal to 1 diameter of anterior median

eyes. Chelicerae with three teeth on an-

terior margin, the middle one largest; two

teeth on posterior margin. Abdomen with

two humps (Fig. 81). Total length 9.0 mm.

Carapace 4.1 mm long, 3.6 wide, 2.1 wide

behind lateral eyes. First femur 3.7 mm,

patella and tibia 4.7, metatarsus 3.0, tarsus

1.1. Second patella and tibia 4.5 mm, third

2.9, fourth 4.1. Abdomen 6.7 mm high.

Male holotype of *W. serrallesi*. Color lighter than in female; sternum orange underlain by white pigment, coxae orange. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart, slightly more than 2 diameters from laterals. Posterior median eyes 2 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 0.9 diameter of anterior median eyes. Chelicerae with four teeth on anterior margin, three on posterior margin. Third, fourth coxae each with one macroseta. Third, fourth trochanters each with one macroseta. Abdomen with humps less distinct than female. Total length 6.3 mm. Carapace 3.2 mm long, 2.7 wide, 1.4 wide behind lateral eyes. First femur 3.6 mm, patella and tibia 3.7, metatarsus 2.3, tarsus 0.9. Second patella and tibia 3.7 mm, third 2.3, fourth 3.0. Abdomen 3.6 mm high.

Note. Males and females were collected together.

Variation. Total length of females 5.6

to 10.3 mm, of males 4.8 to 6.4. The epigynum is quite variable in shape (Figs. 78-80, 83-86); the few males that are available differ only slightly in the shape of the terminal apophysis. It is not known if this is individual or geographic variation. Figures 78-81 were made from the paratype and Figure 87 was made from the holotype of *W. serrallesi*. Figure 84 was made from the holotype of *W. pujalsi*. Figures 85, 86 were made from that of *W. vaurieorum*, and Figure 83 was made from a specimen from Thatch Key, U. S. Virgin Islands. These illustrations show the large variation.

Figures 71-74. *Ocrepeira branta* n. sp., female. 71-73, epigynum. 71, ventral. 72, posterior. 73, lateral. 74, dorsal.

Figures 75-77. *O. potosi* n. sp., male. 75, 76, left palpus. 77, dorsal.

[Begin Page: Figs. 71-93, Page 83]

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Figures 78-87. *O. serrallesi* (Bryant). 78-86, female. 78-80, 83-86, epigynum. 78, 83-85, ventral. 79, 86, posterior. 80, lateral.

81, dorsai. 82, abdomen, ventral. 87, male palpus. 78-80, 81, 87, Mona Island. 83, U.S. Virgin Islands, Thatch Key.

84, Cuba,

holotype of *pujalsi*. 85, 86, Jamaica, holotype of *vaurieorum*. 87, Mona Island, holotype of *serrallesi*.

Figures 88-93. *O. redempta* (Gertsch and Mulaik). 88-92, female. 88-90, epigynum. 88, ventral. 89, posterior. 90, lateral. 91,

dorsal. 92, lateral. 93, male palpus.

Scale lines. 1 .0 mm, genitalia 0.1 mm.

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Diagnosis. This species has been con- Puerto Rico Isl. Proj., AMNH). MARTI-

fused with *Neoscona nautica*. The poste- NIQUE Trois Ilets Ansemitan, 10-11 June

rior median eyes of *N. nautica* are on a 1960, imm. (C, P. Vaury, AMNH). GRE-

relatively flat head and face up, while those NADA St. George's, Sept. 1967, 9 (N. L.

of *Ocrepeira* are on a joint swelling, farther H. Krauss, AMNH).

apart and face almost sideways (Fig. 81).

Ocrepeira serrallesi differs from *O. re- Ocrepetra redempta* (Gertsch and Mulaik),

redempta and *O. branta* by the distinct rect- ne™ C0mb ' n o at, ° n , A .

angular white patches on the black un- ^Q^es 88-93; Map 4

derside of the abdomen (Fig. 82), and by *Aranea redempta* Gertsch and Mulaik, 1936: 18, fig.

the flask-shaped posterior median plate 39, 9. Female holotype from Edinburg, Texas, in

with a narrow, ventral neck (Fig. 79). The AMNH, examined.

j. i • • m nl,,r,/4n» fVmn tliot *Neoscona redempta*: — Berman and Levi, 19/ 1: 499,

median apophysis is more slendei than that ^

r ^ i ii .i ..l figs- 121-124, 9.

of *O. redempta* and has a tooth at the

widest portion of its base (Fig. 87) and a Description. Female from Sonora, Mex-

terminal apophysis as long as high. ico. Carapace orange with light colored

Specimens Examined. CUBA Cienfue- setae, sides of thoracic region brown to

gos: Topes de Collantes, 17 July 1956, 9 black. Chelicerae orange to brown. Labi-

(C. P. Vaurie, AMNH). Santiago: Loma ura, endites brown. Sternum orange un-

(Pico) de Gato, Sierra Maestra, 26-28 June derlain by white, margin dark. Coxae or-

1959, 29 (W. M. Sanderson, AMNH); Si- ange; legs orange with dark rings. Dorsum

erradeCobre, 900-1,200 m, 3-7 July 1936, of abdomen with white, gray, and black

9 (P. J. Darlington, MCZ). Guantanamo: marks (Fig. 91); sides with undulating black

Mts. N Imias, 900-1,200 m, 25-28 July line (Fig. 92); venter with a pair of light

1936, 29 (P. J. Darlington, MCZ). HIS- patches on gray (Fig. 92). Posterior median

PANIOLA Dominican Republic: Cordil- eyes same diameter as anterior medians,

lera Central, La Vega, 9 Aug. 1958, 9 (A. laterals 0.8 diameter. Anterior median eyes

F. Archer, AMNH); nr. La Romana, 31 1.2 diameters apart. Posterior median eyes

July 1935, 29, 8 (Hassler, AMNH); Mt. Busu, 2 diameters apart. Ocular quadrangle wid-

Sierra Martin Garcia, 300-1,300 m, 25 June er behind than in front. Height of clypeus

1983, 8 (G. Flores, A. Gross, MCZ). PUER- equal to 1.5 diameters of anterior median

TO RICO Culebra Isl., 19 July 1965, 8 (F. eyes. Abdomen as long as wide (Fig. 91).

Mackenzie, AMNH); Bosque Estadual de Total length 7.8 mm. Carapace 2.8 mm

Maricao, 23 July 1958, 8 (A. F. Archer, long, 2.6 wide, 1.4 wide behind lateral eyes.

AMNH); Desecheo Isl., 28 Mar. 1961, 49 First femur 2.7 mm, patella and tibia 3.2,

(MCZ), 27-29 May 1965, 9, 8, 2 imm. (H. metatarsus 2.0, tarsus 0.8. Second patella

Heatwole, AMNH); Muertos Isl, 27-29 and tibia 3.1 mm, third 2.0, fourth 3.0.

May 1959, 39 (Jordan, Martorell, AMNH), Male from Sonora, Mexico. Color as in

25 June 1959, 28 (AMNH). U. S. VIRGIN female. Lateral lines on abdomen indis-

ISLANDS Thatch Key, 12 Nov. 1966, 9 tinct. Posterior median eyes 0.7 diameter

(Univ. Puerto Rico Isl. Proj., AMNH). St. of anterior medians, laterals 0.5 diameter.

Croix: Christiansted, 8 (ZMK). St. John: Anterior median eyes slightly less than their

10-12 July 1958, 69, 28 (A. F. Archer, diameter apart. Posterior median eyes 2

AMNH); nr. Cinnamon and Hart Bays, 1- diameters apart. Ocular quadrangle wider

4 Aug. 1976, 9 (D.E., D.N. Rosen, AMNH). behind than in front. Height of clypeus

BRITISH VIRGIN ISLANDS Cooper Isl., equal to 0.8 diameter of anterior median

25 July 1986, 5 (J. Lazell, J. Bush, USNM); eyes. Third, fourth coxae each with one

Little Camanoe, 2 July 1965, 8 (Univ. macroseta. Third and fourth trochanters

Puerto Rico Isl. Proj., AMNH); Tortola, with one macroseta. Total length 4.4 mm.

Greater Camanoe Isl., 1 July 1965, 9 (Univ. Carapace 2.7 mm long, 2.3 wide, 1.2 wide

[Begin Page: Page 85]

behind lateral eyes. First femur 2.9 mm, patella and tibia 3.4, metatarsus 1.6, tarsus 0.8. Second patella and tibia 2.7 mm, third 1.8, fourth 2.5.

Note. Males and females were collected together.

Variation. Total length of females 5.7 to 7.8 mm, of males 4.4 to 5.0. Figures 88-92 were made from a specimen from Sonora. Figure 93 from a male from Texas.

Diagnosis. *Ocrepeira redempta* from Mexico and Central America can be confused with the West Indian *O. serrallesi*. The ventral white patches on the abdomen are less distinct than in the West Indian species (Fig. 92). The ventral part of the posterior median plate of the epigynum (Fig. 89) differs from that of *O. serrallesi* (Figs. 79, 86) and the median apophysis

differs in that the prong is less curved and the widest part above the base has a semi-circular offset (Fig. 93)

Specimens Examined. MEXICO So-nora: Minas Nuevas, 8 Aug. 1952, 9, ♀ (P., C. Vaurie, AMNH); 16 km W Alamos, 19 July 1954, 29, S (W. J. Gertsch, AMNH). San Luis Potosi: hotel, Covadonga, Valles, 1961, 9 (L. Steude, AMNH). Nayarit: Tepic, 4 Aug. 1953, 9 (P., C. Vaurie, AMNH). Baja California Norte: 24 km S Santo Domingo, 4 Oct. 1941, 9 (E. Ross, Bohart, CAS). Baja California Sur: Comitan, Matrorral Sarcocaula, 4 Oct. 1987, 9 (M. L. Jimenez, MLJ); Comitan, 2 Sept. 1987, 2<3 (M. L. Jimenez, MLJ); 16 km NW La Paz, 6 Oct. 1941, 9 (E. Ross, Bohart, CAS). GUATEMALA Ciudad Guatemala, 1,400-1,500 m, June 1981, 9 (N. L. H. Krauss, AMNH). HONDURAS Tsecucigajo [Tsecucigalpa], 18 June, 9 (H. Dybas, AMNH).

Ocrepeira camaca new species

Figures 94-100; Map 5

Holotype. Female holotype from Fazenda Sao Roque, Camaean [Camaea], Bahia State, Brazil, 2 Dec. 1977 (J. S. Santos), in MCN no. 11044. The specific name

is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, anterior of cephalic area

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dusky. Chelicerae orange with a dusky reticulate pattern. Labium, endites orange.

Sternum light orange. Coxae light orange, legs with indistinct dusky rings. Dorsum

of abdomen with anterior edge black and with paired diagonal black marks on white

(Fig. 97); venter dusky with two indistinct white patches (Fig. 98). Cephalic area of

carapace unusually narrow. Posterior median eyes 0.7 diameter of anterior medi-

ans, anterior laterals 0.7 diameter, posterior 0.6. Anterior median eyes their

diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle nar-

rower behind than in front. Height of clypeus equal to 0.8 diameter of anterior me-

dian eyes. Abdomen oval without distinct humps (Fig. 97). Total length 9.6 mm.

Carapace 4.5 mm long, 4.1 wide, 1.8 wide behind lateral eyes. First femur 4.6 mm,

patella and tibia 5.8, metatarsus 3.9, tarsus

1.3. Second patella and tibia 5.6 mm, third 3.3, fourth 4.9.

Male from Itamaraju, Bahia, Brazil.

Color as in female but some white pigment posteriorly in cephalic area of carapace, and sternum underlain by white pigment.

Legs more distinctly ringed than those of the female. Posterior median eyes same diameter as anterior medians, laterals 0.5 diameter. Anterior median eyes 0.6 diameter apart. Posterior median eyes 1.8 diameters apart. Posterior median eyes on swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Palpal patella with one macroseta. Third, fourth coxae each with one macroseta. Third and fourth trochanters each with one macroseta. Abdomen oval without tubercles. Total length 5.4 mm. Carapace 3.1 mm long, 2.9 wide, 1.6 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 4.2, metatarsus 2.6, tarsus 0.9. Second patella and tibia 3.9 mm, third 2.3, fourth 3.0.

Note. Males and females were collected at the same locality, and have a similar abdomen. But the eyes differ: those of the

male have the posterior median eyes on a larger swelling than those of the female.

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Variation. Total length of females 11.3 to 9.6 mm. The female from Curitiba has no white spots on the venter of the abdomen, has eyes on a swelling, and has the scape of the epigynum torn off. Figures 94-98 were made from the holotype, and Figures 99, 100 from a male from Itamaraju.

Diagnosis. The shape of the epigynum (Figs. 94-96) and the median apophysis of the palpus (Figs. 99, 100) resemble that of the West Indian *O. serrallesi* (Figs. 78-87), and differ from all other Brazilian species.

Records Examined. BRAZIL Bahia: Fazenda N. S. Neves, Itamaraju, 9 Oct. 1978,

2, 8 (J. S. Santos, MCN 10324, 11018). Pa-
rand: Curitiba, 1945, 9 (Gengnagel, MZSP
9647).

Ocrepeira arturi new species

Figures 101-107; Map 4

Holotype. Female holotype and one male and one
immature paratype from Barro Colorado Island,
Lago Gatun, Panama Prov., Panama, May 1964 (A.
M. Chickering), in MCZ. The species is named after
the collector.

Description. Female holotype. Cara-
pace orange. Chelicerae, labium, endites
orange. Sternum orange, underlain by some
white pigment. Coxae, legs orange. Dor-
sum of abdomen white, gray, and black
(Fig. 104); venter black with a pair of white
spots (Fig. 105). Posterior median eyes 1.1
diameters of anterior medians, anterior
laterals 0.8 diameter, posterior laterals 1
diameter. Anterior median eyes 1.7 di-
ameters apart. Posterior median eyes 2.5
diameters apart. Ocular quadrangle wider
behind than in front. Height of clypeus
equal to 1.7 diameters of anterior median
eyes. Abdomen with an anterior median

hump in addition to the anterior lateral ones, and two pairs of swellings on sides (Fig. 104). Total length 7.2 mm. Carapace 3.5 mm long, 3.2 wide, 1.8 wide behind lateral eyes. First femur 4.0 mm, patella and tibia 4.5, metatarsus 2.9, tarsus 1.1. Second patella and tibia 4.3 mm, third 2.7, fourth 3.9. Abdomen 5.5 mm long.

Male paratype. Color as in female, but legs with darker orange rings. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes two diameters apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Third, fourth trochanters with one macroseta. Abdomen with anterior median tubercle. Total length 6.2 mm. Carapace 3.8 mm long, 3.5 wide, 1.8 wide behind lateral eyes. First femur 4.4 mm, patella and tibia 5.1, metatarsus 2.9, tarsus 1.1. Second patella and tibia 4.7 mm, third 2.7, fourth 3.8. Abdomen 4.5 mm long.

Note. Males and females were collected together.

Diagnosis. *Ocrepeira arturi* differs from most *Ocrepeira* species by having an anterior median hump and humps all around the abdomen (Fig. 104). The epigynum (Figs. 101-103) can be confused with that of *O. serrallesi* (Figs. 78-86). The male palpus has differently shaped median and terminal apophyses (Figs. 106, 107) from those of *O. serrallesi* (Fig. 87).

Ocrepeira pedregal new species

Figures 108-110; Map 4

Holotype. Male holotype from Pedregal, Distrito Federal, Mexico, 8 Aug. 1947 (H. Wagner), in

Figures 94-100. *Ocrepeira camaca* n. sp. 94-97, female. 94-96, epigynum. 94, ventral. 95, posterior. 96, lateral. 97, dorsal.

98, abdomen, ventral. 99, 100, left male palpus.

Figures 101-107. *O. arturi* n. sp. 101-105, female. 101-103, epigynum. 101, ventral. 102, posterior. 103, lateral. 104, dorsal.

105, abdomen, ventral. 106, 107, male palpus.

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Figures 108-110. *O. pedregal* n. sp., male. 108, 109, palpus. 110, dorsal.

Figures 111-113. *O. yucatan* n. sp., male. 111, 112, palpus. 113, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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AMNH. The specific name is a noun in apposition
after the type locality.

Description. Male holotype. Carapace
with an orange band, band wider in front
than behind, carapace brown in thoracic
region. Chelicerae, labium, endites orange.
Sternum orange, underlain by some white
pigment. Coxae orange, legs orange-brown
with indistinct darker rings. Dorsum of
abdomen with white cardiac mark and
black outline of a folium (Fig. 110). Venter
with a white transverse rectangle between

genital groove and spinnerets. Posterior median eyes 1.1 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.7 diameters apart. Posterior median eyes 1.8 diameters apart. Lateral eyes their radius apart. Ocular quadrangle square. Height of clypeus equal to 1.3 diameters of anterior median eyes. Third, fourth coxae each with one macroseta. Third, fourth trochanters each with one macroseta. Abdomen with two anteriorly directed tubercles (Fig. 110). Total length 5.2 mm. Carapace 2.7 mm long, 2.3 wide, 1.2 wide behind lateral eyes. First femur 3.0 mm, patella and tibia 3.4, metatarsus 1.9, tarsus 0.7. Second patella and tibia 2.7 mm, third 1.8, fourth 2.5. Abdomen 3.1 mm long.

Variation. Total length of males 5.2 to 5.6 mm. The illustrations were made from the holotype.

Diagnosis. *Ocrepeira pedregal* differs from *O. yncatan*, *O. rufa*, and other males found in Mexico by the shape of the median and terminal apophyses and the knife-shaped paramedian apophysis (Figs. 108, 109).

Specimens Examined. MEXICO Mi-
choacan: 16 km S Uruapan, 6 July 1985,
6 (Woolley, Zolnerwich, DAD). NICA-
RAGUA 5 'km N Matagalpa, 15 Julv 1989,
6 (R. Reinbold, JMM).

Ocrepeira yucatan new species

Figures 111-113; Map 4

Holotype. Male holotype from Piste, Yucatan, Mex-
ico, 4-8 June 1959 (C. P. Vaurie), in AMNH. The
specific name is a noun in apposition after the type
locality.

Description. Male holotype. Cara-
pace orange with white pigment in mid-
dle. Clypeus black, sides of thoracic region
with some white down-like setae. Chelic-
erae, endites, labium dusky orange. Ster-
num orange underlain by some white pig-
ment. Coxae light orange; legs light orange
with black rings. Abdomen black anterior
to a white line between tubercles, black
outline of folium posteriorly (Fig. 113);
venter with a pair of white patches on
black. Posterior median eyes 0.9 diameter
of anterior medians, laterals 0.6 diameter.

Anterior median eyes their diameter apart.
Posterior median eyes 1.8 diameters apart.
Ocular quadrangle square. Height of clypeus equal to 1.2 diameters of anterior median eyes. Third, fourth coxae each with one macroseta. Third and fourth trochanters with one macroseta. Abdomen ovoid with tubercles minute (Fig. 113). Total length 5.0 mm. Carapace 3.3 mm long, 3.0 wide, 1.3 wide behind lateral eyes. First legs lost. Second patella and tibia 3.6 mm, third 2.2, fourth 3.1.

Diagnosis. *Ocrepeira yucatan* differs from other species by having small abdominal tubercles, light colored carapace, white patches on venter, and median apophysis with a long, distally turned "up" prong (Figs. III, 112).

Ocrepeira incerta (Bryant),
new combination
Figures 114-118; Map 4

Wixia incerta Bryant, 1936: 328, pi. 23, figs. 6, 8, 9.
Three female syntypes from Sierra del Cobre, Loma del Gato, 2,600-3,325 ft [790-1,000 m], Cuba, in MCZ, examined. Roewer, 1942: 882. Bonnet, 1959: 4829.

Description. Female syntype. Carapace orange with almost circular brown cap; area between median and lateral eyes brown. Chelicerae brown. Labium, endites yellow to brown. Sternum light yellowish with dark margin. Coxae light yellowish; legs yellowish with brown rings. Dorsum of abdomen white and black with posterior transverse bars (Fig. 117); venter dusky with a pair of large white patches anterior to spinnerets. Anterior median

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eyes 1.5 diameters apart, 2.5 diameters from laterals. Posterior median eyes 1.5 diameters apart, slightly more than 3 from laterals. Posterior median eyes on swelling. Ocular quadrangle square. Height of elyptus equal to 0.8 diameter of anterior median eyes. Abdomen with two large tubercles and a minute anterior median one

(Fig. 117). Total length 4.3 mm. Carapace 1.8 mm long, 1.7 wide, 1.2 wide behind lateral eyes 1.2 wide. First femur 2.0 mm, patella and tibia 2.3, metatarsus 1.4, tarsus 0.6. Second patella and tibia 2.1 mm, third 1.2, fourth 1.7. Abdomen 3.1 mm high.

Variation. Total length of females 3.8 to 5.4 mm. Some specimens have a longer scape of the epigynum or have a longer abdomen than others (Fig. 118). The specimens from Pico Turquino have a dark sternum and lack dark rings on legs. Figures 114-117 were made from a syntype and the abdomen (Fig. 118) from a specimen from Pico Turquino.

Diagnosis. This species differs from all others by the triangular epigynum (in ventral view, Figs. 114, 115) and the flask-shaped outline of the median plate in posterior view (Fig. 115).

Specimens Examined. CUBA Santiago: Sierra del Cobre, 900-1,200 m, 3-7 July 1936, 9 (P. J. Darlington, MCZ); Pico Turquino, 1,800 m, 16-21 June 1936, 9 (P. J. Darlington, MCZ); S side Pico Turquino,

900-1,500 m, June 1936, 9 (P. J. Darlington, AMNH); La Majagua, El Cardero, Pico Turquino, Mar. 1980, 9 (G. Alayon, A. Valdes, IESC).

Ocrepeira hirsuta (Mello-Leitao),
new combination

Figures 119-125; Map 5

Epeira venustula: — Keyserling, 1892: 128, pi. 6, 9, S.

Not *E. venustula* Keyserling, 1880, misidentification (see *O. venustula* below).

Eustala hirsuta Mello-Leitao, 1942: 400, figs. 16-18, <3. Male holotype from Tirol, Chaco Prov., Argentina, in MLP, examined. Brignoli, 1983: 269.

Description. Female from Chaco, Paraguay. Carapace yellowish, cephalic region orange with white setae, sides of cephalic region and area between eyes dark

brown; a dark brown patch on each side behind cephalic region (Fig. 122). Chelicerae dusky brown, orange proximally. Labium, endites brown. Sternum dusky with five orange patches, yellow behind labium.

Coxae yellow; legs yellow, ringed dark brown. Anterior of dorsum of abdomen

dark to a line between tubercles; posterior with a lyre-shaped mark (Fig. 122); venter gray with a pair of white spots (Fig. 123). Posterior median eyes 0.9 diameter of anterior medians, laterals 0.8 diameter. Anterior median eyes 1.1 diameters apart, 2.5 diameters from laterals. Posterior median eyes 1.2 diameters apart, almost 4 diameters from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with distinct humps (Fig. 122). Total length 6.4 mm. Carapace 3.4 mm long, 2.5 wide, 1.6 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 3.2, metatarsus 2.0, tarsus 0.9. Second patella and tibia 3.1 mm, third 1.9, fourth 2.9.

Male holotype of *Eustala hirsuta*. Color as in female but dorsum of abdomen with brown chevrons. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes slightly more than their diameter apart. Third and fourth coxae with one macroseta. Fourth trochanter with one macroseta. Ab-

domen oval. Total length 5.8 mm. Carapace 3.0 mm long, 2.6 wide. First femur 2.8 mm, patella and tibia 3.6, metatarsus 2.0, tarsus 0.8. Second patella and tibia 2.8 mm, third 2.1, fourth 3.0.

Note. Males and females were repeatedly collected together.

Variation. Total length of females 6.4 to 8.2 mm, of males 4.5 to 5.8. A male from Rio Grande do Sul had the ocular quadrangle narrower behind than in front, the height of the clypeus equal to the diameter of the anterior median eyes, the carapace 2.4 mm wide, 1.3 wide behind lateral eyes. Some females have the sternum colored as in *Parawixia* (Levi, 1992, fig. 6) with pairs of light colored patches.

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All illustrations were made from speci-

mens from Chaco, Paraguay.

Diagnosis. The epigynum, in ventral view, unlike that of other species, has a small lobe on each side (Fig. 119), and has a distinct constriction of the median plate in posterior view (Fig. 120). The palpus differs by the shape of the median apophysis (Figs. 124, 125).

Natural History. One female from Curitiba was observed making an orb in the grass at sunset.

Specimens Examined. BRAZIL Parana: Curitiba, 3 Feb. 1988, 9 (R. L. C. Baptista, RLCB); Rolandia, 1948, 9 (A. Mailer, AMNH). Rio Grande do Sul: Guaiba, 8 Feb. 1980, 9 (H. A. Gastal, MCN 9224); Parque Estadual de Nonoai, Nonoai, 13 Jan. 1985, 9 (A. A. Lise, MCN 12910); Sao Leopoldo, 19 June 1965, 69, 6 (C. Valle, MZSP 4887); Serro Claro, Sao Pedro do Sul, 10 Jan. 1985, 169, 8<5, imm. (A. A. Lise, MCN 13001). PARAGUAY Alto Parana: Taguararapa, 79, S (AMNH), 1-6 Sept. 1982, 79, <5 (J. A. Kochalka, IRNP); SE Naryal [?], 18-22 Aug. 1988, 6 (L. Pefia, AMNH). Chaco: Parque Nacional Def en-

sores, Mision Cue, Tribu Nueva, 1-3 Sept. 1982, 79, 26 (J. A. Kochalka, IRNP). Itapua: Autidia Matiauda, 20 km NE Puerto Capitan Meza, Mar. 1984, 6 (L. Fogarty, MCZ). ARGENTINA Misiones: Eldorado, Sept.-Nov. 1964, 29 (A. Kovacs, AMNH); Puerto Aguirre, 1943, 9 (J. M. Siana, MACN). Salta: Zuviria, Dec. 1907, 9, 6 (E. Reimoser, MCZ). Santa Fe: San Javier, Feb. 1964, 6 (M. E. Galiano, MEG).

Ocrepeira hondura new species

Figures 126-130; Map 4

Holotype. Female holotype from Bajo Hondura [10°09'N, 83°55'W], 1,200 m, San Jose Prov., Costa Rica, Nov. 1987 (W. Eberhard), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, sides with a wide brown band broken behind posterior median eyes. Chelicerae, labium, endites brown. Sternum white with a brown rim. Anterior two pairs of coxae brown, posterior two yellowish; legs yellowish with dark rings and patches. Dorsum of abdomen with dark

marks on anterior side of each tubercle, posterior with transverse dark bars (Fig. 129); venter black with a pair of white spots (Fig. 130). Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 2 diameters apart. Ocular quadrangle almost square, very slightly wider behind. Height of clypeus equal to 1 diameter of anterior median eye. Abdomen with a pair of tubercles (Fig. 129). Total length 8.2 mm. Carapace 3.4 mm long, 2.7 wide, 2.0 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.8, metatarsus 2.0, tarsus 0.9. Second patella and tibia 3.6 mm, third 2.2, fourth 3.4. Abdomen 5.7 mm long.

Diagnosis. The triangular epigynum differs from all others by the small pocket at the tip (Fig. 126) and the shape of the posterior median plate (Fig. 127).

Ocrepeira klossi new species

Figures 131-136; Map 5

Holotype. Female holotype from Serro do Caraca, Minas Gerais State, 20°08'S, 43°30'W, Brazil, 12-

23 Nov. 1961 (U. Martins, K. Lenko, R. Kloss), in
MZSP no. 6710. The species is named after one of
the collectors.

Description. Female holotype. Cara-
pace orange. Chelicerae, labium, endites
orange. Sternum orange. Coxae orange;
legs orange. Dorsum of abdomen white
(Fig. 134); venter without pigment except
for two white pigment patches and white

Figures 114-118. *Ocrepeira incerta* (Bryant), female. 114-116, epigynum. 114, ventral. 115, posterior. 116,
lateral. 117, dorsal.

118, abdomen, dorsal.

Figures 119-125. *O. hirsuta* (Mello-Leitao). 119-123, female. 119-121, epigynum. 119, ventral. 120, posterior. 121,
lateral.

122, dorsal. 123, abdomen, ventral. 124, 125, male left palpus.

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Figures 126-130. *O. hondura* n. sp., female. 126-128, epigynum. 126, ventral. 127, posterior. 128, lateral. 129,
dorsal. 130,

abdomen, ventral.

Figures 131-136. *O. klossi* n. sp. 131-134, female. 131-133, epigynum. 131, ventral. 132, posterior. 133, lateral.
134, dorsal.

135, 136, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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streaks on sides. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle almost square. Height of elypeus equal to 1 diameter of anterior median eyes. Abdomen with lateral tubercles (Fig. 134). Total length 10.0 mm. Carapace 3.7 mm long, 3.1 wide, 1.8 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 4.0, metatarsus 2.7, tarsus 1.0. Second patella and tibia 3.9 mm, third 2.5, fourth 3.6.

Male paratype. Color as in female but legs with indistinct darker rings and abdomen with anterior black with a white cardiac mark, posterior with a black outline around a dark folium. Posterior me-

dian eyes 0.9 diameter of anterior medians, laterals 0.8 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of elypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Third and fourth trochanters each with one macroseta. Total length 6.0 mm. Carapace 3.3 mm long, 2.7 wide, 1.2 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 3.9, metatarsus 2.3, tarsus 0.9. Second patella and tibia 3.2 mm, third 2.0, fourth 3.1.

Note. It is uncertain if male and female belong together; they were matched on account of similar size of the carapace and proximate collecting localities.

Diagnosis. The epigynum of this species has a scape that is constricted anteriorly (Fig. 131) and is relatively thick (Fig. 133). The male has a unique median apophysis with a slight swelling on its "upper" side (Fig. 136).

Paratype. BRAZIL Minas Gerais: Lagoa Santa, 26 Nov. 1960, 6 (C. Araujo, Martina, MZSP 7960).

Ocrepeira mastophoroides (Mello-Leitao),
new combination

Figures 137-142; Map 5

Parawixia mastophoroides Mello-Leitao, 1942: 402, figs. 23, 24, 9. Female holotype from Quimili, Santiago del Estero Prov., Argentina, in MLP, examined. Brignoli, 1983: 279.

Description. Female specimen from Cordoba, Argentina. Carapace orange-brown with black band across cephalic region, and elypeus black. Chelicerae dark orange. Labium, endites orange. Sternum light orange with dusky around border. Coxae light orange; legs orange, contrastingly ringed with gray to black. Dorsum of abdomen black, white, and brown (Fig. 140); venter, with white pigment between epigynum and spinnerets. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes 1 . 1 diameters apart, 2.5 diameters from laterals. Posterior median eyes 2 diameters apart, 3.5 diameters from laterals.

Ocular quadrangle slightly wider behind than in front. Height of elypeus equal to 1 diameter of anterior median eyes. Abdomen with five pairs of tubercles, the anterior lateral double (Fig. 140). Total length 6.6 mm. Carapace 3.2 mm long, 2.3 wide, 1.6 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.9. Second patella and tibia 3.2 mm, third 2.0, fourth 3.2.

Male specimen from La Rioja Prov., Argentina. Color darker and more contrasting than in female. Sides of thorax orange, cephalic area black. Sternum with white pigment, abdomen with white cardiac mark, and venter with a pair of indistinct white spots in front of spinnerets. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.6 diameter apart, less than 2 diameters from laterals. Posterior median eyes 0.8 diameter apart, about 3.5 diam-

Figures 1 37-1 42. *Ocrepeira mastophoroides* (Mello-Leitao). 1 37-1 40, female. 1 37-1 39, epigynum. 1 37, ventral. 1 38, posterior.

139, lateral. 140, dorsal. 141, 142, left male palpus.

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Figures 143-154. *O. venustula* (Keyserling). 143-151, females. 143-147, epigynum. 143, ventral. 144-146, posterior. 147,

lateral. 148, 150, 151, dorsal. 149, abdomen, dorsal. 152-154, palpus. 143, 144, 147, 148, 152, 153, (Minas Gerais State, Brazil).

150, (Rio Grande do Sul State, Brazil). 146, 151, (Santa Catarina State, Brazil). 145, 149, 154 (Cautin Prov., Chile).

Figures 155, 156. *O. verecunda* (Keyserling), male palpus (from Keyserling, 1892).

Figures 157-159. *O. redondo* n. sp., male. 157, 158, palpus. 159, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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eters from laterals. Ocular quadrangle

square. Height of elypeus equals to 1.5

diameters of anterior median eyes. Third

and fourth coxae with a macroseta. Fourth

trochanter with one macroseta. Abdomen with tubercles as in female. Total length 5.6 mm. Carapace 2.9 mm long, 2.4 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.6, metatarsus 2.1, tarsus 0.9. Second patella and tibia 3.1 mm, third 2.1, fourth 3.0.

Note. Males and females were matched by the shape of their abdomen.

In the Paris museum is an immature individual marked "Ar. bergi Simon" from Uruguay (MNHN No. 5490), a nomen nudum, a name never published.

Variation. The holotype is much larger than the specimens described here. Total length of the female 10.0 mm, carapace 4.0 mm long, 3.0 wide and first patella and tibia 4.0 mm. The illustrations were made from a female from Cordoba Prov. and from a male from La Rioja Prov., Argentina.

Diagnosis. Both males and females can be separated from all other South American species by tubercles around the abdomen (Fig. 140). The female is distin-

guished by the shape of the posterior median plate of the epigynum (Fig. 138) and the male by the long projecting median apophysis of the palpus (Fig. 142).

Specimens Examined. ARGENTINA La Rioja: Pozo de Piedra, 6 km E Chepes, 7 Jan. 1980, 23 (R. E. Woodruff, L. A. Stange, FSCA). Entre Rios: Concepcion del Uruguay, 4 Jan. 1941, 9 (R. F. Prosen, MLP). Cordoba: Calamuchita, Dec. 1941, 9 (J. M. Viana, MACN).

Ocrepeira venustula (Keyserling),
new combination

Figures 29-33, 143-154; Map 5

Epeira venustula Keyserling, 1880: 308, pi. 4, fig. 11, 9. Female holotype from Nova Friburgo [Rio de Janeiro State], Brazil, in the L. Koch collection, lost.

Aranea venustula: — Roewer, 1942: 856.

Araneus venustus: — Bonnet, 1955: 628.

Note. The original specimen of *E. venustula* is lost. The measurements and de-

scription of Keyserling (1880) fit this common species best. However, three female, two male, and two immature specimens from Espirito Santo, Brazil, in BMNH, determined by Keyserling, and the subsequent description in Keyserling, 1892: 128, pi. 6, 9 [?], 6\ appear to be those of *O. hirsuta* (Mello-Leitao).

Description. Female from Gonzaga, Minas Gerais, Brazil. Carapace orange with white setae on cephalic region, sides of thoracic region dusky. Chelicerae orange, distally darker. Labium, endites orange. Sternum orange with dusky marks. Coxae lighter orange; legs orange with dusky rings. Dorsum of abdomen orange with black setae, darker anterior to lateral tubercles with a light line between tubercles (Fig. 148); venter light dusky orange without marks. Posterior median eyes 0.6 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.2 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of elypeus equal to 1.2 diameters of anterior median eyes. Abdomen with a pair

of anterior tubercles and many short setae, densest on tubercles (Fig. 148). Total length 8.5 mm. Carapace 3.8 mm long, 3.1 wide, 2.0 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 4.2, metatarsus 2.8, tarsus 1.1. Second patella and tibia 3.9 mm, third 2.5, fourth 3.8.

Male from Vicosa, Minas Gerais, Brazil.

Color as in female but cephalic region and sides of thoracic region darker orange than middle. Sternum orange underlain by white. Legs orange, distal articles with indistinct darker rings. Abdomen with white cardiac mark. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 1.1 diameters apart, 1.7 diameters from laterals. Posterior median eyes 1.5 diameters apart, 3.5 diameters from laterals. Ocular quadrangle slightly longer than wide and slightly narrower behind than in front. Height of elypeus equal to 1 diameter of anterior median eyes. Third and fourth coxae with one macroseta. Third and fourth trochan-

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ters with one macroseta. Abdomen oval.

Total length 5.2 mm. Carapace 3.1 mm

long, 2.5 wide, 1.4 wide behind lateral eyes.

First femur 2.7 mm, patella and tibia 3.6,

metatarsus 2.0, tarsus 0.8. Second patella

and tibia 3.0 mm, third 1.9, fourth 2.7.

Variation. Total length of females 6.9

to 10.8 mm, of males 5.2 to 7.2. A second

male had a macroseta only on the third

and fourth coxae and left fourth trochan-

ter. Most females have a similar appear-

ance (Fig. 148); however, a female from

Santa Catarina State, Brazil, has the tu-

bercles of the abdomen extended (Fig.

151). Some others have pointed tubercles

on the abdomen and a dark folium (Figs.

146, 149 from Rio Grande do Sul). Perhaps

they belong to different species. Figures

143, 144, 147, 148, 152, 153 were made

from specimens from Minas Gerais State,

Figures 146, 149 from Rio Grande do Sul,

Figures 29-33, 145, 150, 154 from Arau-

caria Region, Chile.

Diagnosis. Unlike several related species the first pair of muscle scars of the abdomen are outside the anterior dark area (Figs. 148, 150, 151). The tip of the scape of the female epigynum has a slight depression (Fig. 143). There is considerable variation in the length of the scape of the epigynum.

Natural History. A female was collected in Itabapoana, Rio de Janeiro State, at night from an orb in a field (R. L. C. Baptista); in Chile specimens were collected by sweeping at dusk in a Valdivian rain forest.

Specimens Examined. BRAZIL. Minas Gerais: Belo Horizonte (AMNH); Carmo de Rio Clara (MNRJ); Gonzaga de Campos (MZSP); Lavras (MCZ); Minha Serinha Diamantina (AMNH); Vicososa (CUC, AMNH). Mato Grosso do Sul: Tres Lagoas, (MZSP). Rio de Janeiro: Itatiaia (AMNH); Bom Jesus do Itabapoana (RLCB); Pinheiro (MNRJ). Sao Paulo: Castilho (MZSP); Emas (MZSP); Jaboticabal (MCZ, MCN); Sao Paulo (MZSP). Santa

Catarina: Pinhal (AMNH). Rio Grande do Sul: Paso Fundo (MCN); Canela (MCN); Garruches, Sao Borja (MCN); Cerro Claro, Sao Pedro do Sul (MCN); Cidreira (MCN);

Chacara Aver, Bom Jesus (MCN); Machadinho (MCN) Parque Estadual de Nonoai (MCN); Sao Leopoldo (MZSP). URUGUAY Durazno: Ave. de Cordoba (MHNM). Paso de los Libres [?] (CAS). ARGENTINA Misiones: Eldorado (AMNH); Las Flores [?] (MACN). Chaco: Presidente Roque Saenz Pena (MACN). Salta: NE Salta (MCZ). La Pampa: Santa Rosa, (MACN); Realico (MACN). Santa Fe: Arrufo (MCZ). Entre Rios: San Felicia [? Feliciano] (MACN). Ruenos Aires: Buenos Aires (MACN); S Las Barrancas [La Barranca] (MACN); Punta Lara (MACN). La Rioja: La Rioja (MACN). Neuquen: Piedra del Aguila (ZMK); San Martin de los Andes, Quilquihue (ZMK). Rio Negro: (MNRJ); El Bolson (AMNH). CHILE Coquimbo: 32 km E La Serena (CAS); Combarbala, Manquehua (MCZ); Hda. Illapel (IRSNB). Valparaiso: Papudo (MNRJ); Quintero (AMNH) Quillota (AMNH). Metropolitana: Aculeo, El Patagual (AMNH); El Canelo, Maipo Canvon (AMNH); Santiago

(MCZ); Malleco (AMNH). Maule: Rio Ter-
rio (AMNH). Rio-Rio: Angol (CAS); Fundo
Pinares (MZSP). Araucaria: region de Ar-
aucaria (AMNH); 30 km NE Villarica
(MCZ). Los Lagos: Llau-llau (USNM);
Valley forest, 18 km W Purranque (CAS);
Osorno (AMNH); Parque Nacional Puye-
hue, 4.1 km E Anticura (AMNH); Puca-
trihue, coast (AMNH); Chiloe, 10 km N
Castro (AMNH).

Ocrepeira verecunda (Keyserling),

new combination

Figures 155, 156; Map 5

Epeira verecunda Keyserling, 1865: 824, pi. 19, figs.

14-16, 6. Male holotype from New Granada [old
name of Colombia], both palpi lost in BMNH, ex-
amined; 1892: 127, pi. 6, fig. 94, 8.

Aranea verecunda: — Roewer, 1942: 856.

Araneus verecundus: — Bonnet, 1955: 628.

Note. The male holotype lost both palpi.

No other specimen was found that matches

Keyserling's illustrations (Figs. 155, 156).

Description. Male holotype. Carapace orange. Sternum, legs light orange. Abdomen orange-white with a white cardiac mark; venter with a white pigment square

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between genital groove and spinnerets.

Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter.

Anterior median eyes 1.5 diameters apart.

Posterior median eyes 1.5 diameters apart.

Ocular quadrangle slightly narrower behind than in front. Height of elypeus equal to 1.3 diameters of anterior median eyes.

Third, fourth coxae each with one macroseta, both on small tubercles. Fourth trochanter with one macroseta. Abdomen with a pair of distinct dorsal, pointed tubercles.

Total length 4.8 mm. Carapace 2.5 mm long, 2.1 wide, 1.2 wide behind lateral eyes.

First femur 2.5 mm, patella and tibia 2.9, metatarsus 1.6, tarsus 0.8. Second patella and tibia 2.5 mm, third 1.5, fourth 2.1.

Ocrepeira redondo new species

Figures 157-159; Map 5

Holotype. Male holotype from Monteredondo, 1,200 m, Depto. Cundinamarca, Colombia, 25 Feb. 1975 (P. A. Schneble), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace orange, sides of thoracic region dark dusky. Sternum, coxae orange. Legs dark orange, distal articles of third and fourth with indistinct darker rings. Dorsum of abdomen dusky, with white cardiac mark (Fig. 159); venter dusky without marks. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 1.8 diameters from laterals. Posterior median eyes 1.2 diameters apart, slightly more than 2 diameters from laterals. Ocular quadrangle square. Height of elypeus equal to 1.1 diameters of anterior median eyes. Third and fourth coxae with one macroseta. Fourth trochanter with one macroseta. Total length 4.5 mm. Carapace 2.7 mm long, 2.3 wide, 1.2 wide behind lateral eyes. First femur 2.7 mm, patella and tibia

3.2, metatarsus, tarsus lost. Second patella and tibia 2.7 mm, third 1.7, fourth 2.3.

Variation. Total length of males 4.5 to 5.0 mm. The illustrations were made from the holotype.

Diagnosis. The soft terminal apophysis hangs over the conductor. The shape of the median apophysis is diagnostic (Figs. 157, 158).

Natural History. The specimen from Sierra Nevada de Santa Marta was beaten from dry banana leaves on a plantation.

Specimens Examined. COLOMBIA
Magdalena: San Sebastian de Rabago, Sierra Nevada de Santa Marta, 2,000 m, 11-14 May 1968, 6 (B. Malkin, AMNH).

Ocrepeira lurida (Mello-Leitao),
new combination

Figures 160-166; Map 5

Wixia lurida Mello-Leitao, 1943: 106, fig. 6, 9. Female holotype from Alta Gracia, Cordoba Prov., Argentina, in MLP, examined. Brignoli, 1983: 281.

Description. Female from Calamuchita, Cordoba Prov., Argentina. Carapace orange, eye area and elypeus dusky. Chelicerae, labium, endites orange. Sternum orange. Coxae yellowish; legs orange with black rings. Dorsum of abdomen white, dusky and with brownish black transverse bars (Fig. 163); venter dusky with a pair

Figures 160-166. *Ocrepeira lurida* (Mello-Leitao). 160-164, female. 160-162, epigynum. 160, ventral. 161, posterior. 162, lateral. 163, dorsal. 164, abdomen, ventral. 165, 166, left male palpus.

Figures 167-173. *O. willisi* n. sp. 167-171, female. 167-169, epigynum. 167, ventral. 168, posterior. 169, lateral. 170, dorsal. 171, abdomen, ventral. 172, 173, male palpus.

Figures 174-179. *O. tumida* (Keyserling). 174-177, female. 174-176, epigynum. 174, ventral. 175, posterior. 176, lateral. 177, dorsal. 178, 179, male palpus.

Figures 180-185. *O. malleri* n. sp. 180-183, female. 180-182, epigynum. 180, ventral. 181, posterior. 182, lateral. 183, dorsal. 184, 185, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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of white patches (Fig. 164). Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.2 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen subspherical with a pair of humps (Fig. 163). Total length 6.0 mm. Carapace 2.5 mm long, 2.2 wide, 1.2 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 2.9, metatarsus 2.6, tarsus 0.7. Second patella and tibia 2.8 mm, third 1.8, fourth 2.7.

Male from Calamuchita, Cordoba Prov., Argentina. Color as in female except venter of abdomen lighter than that of female.

Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1.2 diameters of the anterior median eyes. Third, fourth coxae each with a macroseta. Fourth trochanter with one macroseta. First, second, and fourth femurs with a ventral row of macrosetae. Second tibia thicker than first, swollen with prolateral macrosetae. Total length 5.0 mm. Carapace 2.7 mm long, 2.2 wide, 1.4 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.5, metatarsus 1.9, tarsus 0.8. Second patella and tibia 3.0 mm, third 1.8, fourth 2.8.

Note. Two males were collected with females.

Variation. Total length of females 4.9 to 6.9 mm, of males 5.0 to 5.1. The illustrations were made from specimens of the Cordoba Prov., Argentina.

Diagnosis. The two dark spots on the flat scape of the epigynum (Fig. 160) and

the vase-shaped posterior median plate (Fig. 161) separate females from *O. venustula*. The male has the terminal apophysis hanging over the conductor as in *venustula*, but is smaller and has a differently shaped median apophysis (Figs. 165, 166).

Natural History. A female was collected in Yungas forest in Argentina.

Specimens Examined. BOLIVIA Santa Cruz: Comarapa, 1,800 m, 14 Dec. 1984, 29 (L. Pena, AMNH). Chuquisaca: E Monteagudo, 1,600 m, 21-24 Dec. 1984, 42, 6 (L. Pena, AMNH). ARGENTINA Salta: El Rey National Park, Pozo Verde Trail, 950 m, 10-13 Dec. 1987, 2 (S., J. Peck, AMNH). Cordoba: Alta Gracia, Feb. 1934, 2 (C. Bruch, MACN); Calamuchita, Dec. 1940, 2, Dec. 1941, 6, 2 imm. (J. M. Viana, MACN). Buenos Aires: Sierra de la Ventana, Mar. 1939, 2, 2<5, 3 imm. (H. Barrio, MACN).

Ocrepeira willisi new species

Figures 167-173; Map 4

Holotype. Female holotype from El Volcan, Chiriquí Prov., Panama, 20 Mar. 1936 (W. J. Gertsch), in

AMNH. The species is named after the collector.

Description. Female holotype. Carapace orange with light setae, cephalic region slightly darker. Clypeus dusky on each side. Chelicerae, labium, endites orange. Sternum orange, borders dark. Coxae, legs orange with darker rings. Dorsum of abdomen white and gray spotted, with dark folium and transverse bars posteriorly (Fig. 170); venter with a pair of white spots (Fig. 171). Posterior median eyes 1.1 diameters of anterior medians, anterior laterals 0.6 diameter, posterior laterals 0.8. Anterior median eyes 1.2 diameters apart. Posterior median eyes 2 diameters apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 1.5 diameters of anterior median eyes. Abdomen with indistinct tubercles (Fig. 170). Total length 5.7 mm. Carapace 2.4 mm long, 2.2 wide, 1.5 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.9, metatarsus 2.0, tarsus 0.8. Second patella and tibia 2.7 mm, third 1.6, fourth 2.5.

Male from type locality. Color as in female, except for some white pigment un-

derneath orange of carapace. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes slightly less than their diameter apart. Posterior median eyes 2 diameters

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apart. Ocular quadrangle slightly wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 4.5 mm. Carapace 2.5 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.1, metatarsus 1.9, tarsus 0.9. Second patella and tibia 2.7 mm, third 1.6, fourth 2.3.

Note. Males and females were collected together.

Variation. Illustrations were made from the holotype and a male collected at the type locality.

Diagnosis. The female differs from that of *O. tumida* and others by the relative "deep" position of the posterior median plate and the transverse pit behind the scape (Fig. 168). The male can be separated from the male of *O. tumida* by the shape of the median and terminal apophyses (Figs. 172, 173).

Specimens Examined. PANAMA Chiriqui: El Volcan, 25 Feb. 1936, 29, 6\ paratypes (W. J. Gertsch, AMNH). Panama: Barro Colorado Isl., Lago Gatun, 12 Feb. 1936, 9 (W. J. Gertsch, AMNH).

Ocrepeira tumida (Keyserling),
new combination

Figures 174-179; Map 5

Epeira tumida Keyserling, 1865: 808, pi. 18, fig. 18, figs. 6-8, 9. Female lectotype here designated, and one paralectotype (belonging to another species) from New Granada [old name for Colombia], in BMNH no. 1890.7.1.4675, examined; (not *Acrosoma tumida* Taczanowski, which has been placed in *Araneus* by later authors).

Wixia tumida: — Keyserling, 1892: 48, pi. 2, fig. 39, 2. Roewer, 1942: 882. Bonnet, 1959: 4830.

Description. Female specimen from Ecuador. Carapace dark brown with long white setae. Chelicerae dark brown. Labium brown. Endites, sternum, coxae orange-brown; legs dark brown. Dorsum of abdomen light with some tiny dark dots, anterior dark (Fig. 177); venter black without marks. Posterior median eyes 1.3

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diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes 1.1 diameters apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle wider behind than in front. Posterior median eyes on a swelling. Height of clypeus equal to 1.2 diameters of anterior median eye. Abdomen with a pair of humps facing anteriorly (Fig. 177). Total length 6.8 mm. Carapace 3.1 mm long, 2.4 wide, 1.8 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.8. Second patella and tibia 3.4 mm, third 2.1, fourth 2.9.

Male from Ecuador in poorly preserved

condition. Carapace dark orange, sternum underlain by white pigment, legs ringed.

Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter.

Anterior median eyes 0.8 diameter apart.

Posterior median eyes 1.3 diameters apart.

Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta.

Fourth trochanter with one macroseta. Abdomen with humps facing anteriorly. Total length 4.5 mm. Carapace 2.7 mm long, 2.1 wide, 1.3 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 3.0, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.7 mm, third 1.8, fourth 2.5.

Note. A male and a female were collected together and both have the forward-facing abdominal humps.

Variation. The lectotype has similar measurements to the specimen described. It differs in coloration: the anterior of the abdomen is brown bordered by white, and the transverse line between the tubercles is broken by a light cardiac mark. Behind the line most of the abdomen is light with

a rectangular gray mark. The venter of the abdomen has a white square between epigynum and spinnerets. The humps are farther apart than the illustrated specimen (Fig. 177) and face laterally. The epigynum differs in ventral view by having less of a groove on the scape, and a greater depression anteriorly on the base. In pos-

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terior view, the median plate is slightly narrower, the laterals are wider, and the scape has no ridge ventrally; it is flat. Figures 174 to 179 were made from specimens from Ecuador.

Diagnosis. Both the holotype and the specimen described have the first and second patella-tibia of equal length. The epigynum has a longitudinal groove in ventral view (Fig. 174) and the median plate has a keel in posterior view (Fig. 175). The prong of the median apophysis, unlike that of other males, is wide just below its tip

and slightly flattened (Figs. 178, 179).

Specimens Examined. ECUADOR

Tungurahua: Bafios, Falls of Agoyan, 1,500 m, 12 May 1939, 2, 2<5 (W. Clarke-Macintyre, AMNH).

Ocrepeira malleri new species

Figures 180-185; Map 5

Holotype. Female holotype from Pinhal, Santa Catarina State, Brazil, Dec. 1947 (A. Mailer), in AMNH.

The species is named after the collector.

Description. Female holotype. Carapace orange-brown with white and dark setae. Chelicerae, labium, endites dark orange. Sternum, coxae dark orange; legs orange-brown. Dorsum of abdomen light gray, anterior black between tubercles, dark area includes anterior pair of muscle scars (Fig. 183); venter dusky orange-gray, without marks. Posterior median eyes 1.1 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 2 diameters apart. Laterals almost their diameter apart. Ocular quadrangle very

slightly wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 183. Total length 8.8 mm. Carapace 3.9 mm long, 3.3 wide, 1.8 wide behind lateral eyes. First femur 3.5 mm, patella and tibia 4.2, metatarsus 2.7, tarsus 1.1. Second patella and tibia 3.9 mm, third 2.4, fourth 3.5.

Male from Pinhal, Santa Catarina, Brazil. Color as in female but sternum underlain by white; anterior dark area of ab-

domen divided by white cardiac mark and does not include anterior muscle scars. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 1.7 diameters from laterals. Posterior median eyes 1.5 diameters apart, 3 diameters from laterals. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third and fourth coxae with one macroseta. Third and fourth trochanters with one macroseta. Total length 7.0 mm. Carapace 3.7 mm long, 3.1 wide, 1.4 wide behind lateral eyes. First femur 3.8 mm, patella and tibia 4.2, metatarsus 2.6, tarsus

1.0. Second patella and tibia 3.4 mm, third 2.3, fourth 3.2.

Note. Males and females were matched because they were collected at the same locality and both lack ventral markings.

Variation. The scape of the epigynum of two females is broken off leaving a short pointed stump. Total length of females 8.8 to 9.0 mm, of males 5.7 to 9.0. Illustrations were made from the female holotype and a male from the type locality.

Diagnosis. Of all females in which the anterior abdominal dark area includes the first muscle scars, *O. malleri* is distinguished by the distinct shape of the scape, which is widened above its tip (Fig. 180) and the circular posterior median plate (Fig. 181). Males can be separated from others by the short terminal apophysis and the shape of the median apophysis (Figs. 184, 185), which shows a slight hump on its "upper" face (Fig. 185).

Specimens Examined. BRAZIL Rio de Janeiro: Petropolis, Dec. 1945, 850 m, 2

(H. Sick, AMNH). Parana: Rio Negro, S
(MNRJ); Rolandia, 6 (A. Mailer, AMNH).
Santa Catarina: Pinhal, Dec. 1947, 22, Jan.
1948, 62, <3 paratypes (all A. Mailer, AMNH).

Ocrepeira galianoae new species

Figures 186-191; Map 5

Holotype. Female holotype from General Belgrano,
Misiones Prov., Argentina, Dec. 1972 (M. E. Ga-

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liano), in MACN no. 8915. The species is named
after colleague M. E. Galiano, the collector.

Description. Female holotype. Cara-
pace orange-brown with hair-like setae.
Chelieerae orange, distally darker. Labi-
um, endites brown. Sternum brown with
median light line. Coxae light orange; legs
orange-brown, distal articles with indis-
tinct darker ring. Dorsum of abdomen

grayish orange-brown, darker anterior to a line between tubercles, dark area including first pair of muscle scars (Fig. 189); venter dusky orange-brown. Posterior median eyes same diameter as anterior medians, laterals 0.5 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.8 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Leg 2 longer than 4. Abdomen as in Figure 189. Total length 8.5 mm. Carapace 3.5 mm long, 2.9 wide, 1.7 wide behind lateral eyes. First femur 3.5 mm, patella and tibia 4.1, metatarsus 2.7, tarsus 0.9. Second patella and tibia 3.9 mm, third 2.5, fourth 3.6.

Male from Vacaria, Rio Grande do Sul, Brazil. Color as in female, except for white pigment spots under sternum and a white cardiac mark dividing dark area of abdomen; dark area not covering anterior muscle scars. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.1 diameters apart, 2 diameters from laterals. Posterior median eyes 1.2 diameters apart, 2.5 diameters from laterals. Ocular quad-

range slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third and fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 6.0 mm. Carapace 3.2 mm long, 2.7 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.8, metatarsus 2.1, tarsus 0.8. Second patella and tibia 3.0 mm, third 2.1, fourth 2.8.

Note. Males and females were collected together. Both sexes have an indistinct pair of white, ventral patches.

Variation. Total length of females 6.3 to 10.2 mm, of males 5.6 to 7.3. The scape of the epigynum is of variable length. Some specimens have a pair of indistinct, ventral white patches. Figures 186-189 were made from the holotype; Figures 190, 191 were made from a male from Vacaria, Rio Grande do Sul.

Diagnosis. The base of the female epigynum, unlike that of *O. fiebrigi* and *O. gima*, is longer than wide in posterior view

(Fig. 187); the male differs from others by the long, pointed terminal apophysis and the shape of the median apophysis, which has a tubercle on the "upper" face below the tip of the prong (Figs. 190, 191).

Natural History. A female was collected in an orb web at night, 2 m above the ground on a tree in Parana State, Brazil.

Specimens Examined. BRAZIL Sao

Paulo: Boraceia, 5 Feb. 1960, 9 (F. Lane, MZSP 3860); Fazenda Intervalles, 15 km E Guapiara, 700 m, Feb. 1990, 29 (W. Eberhard, MCZ). Parana: Curitiba, 5 Feb. 1988, 9 (R. C. L. Baptista, MZSP 13170); Rio Negro, 6 (MNRJ). Santa Catarina: Pinhal, Dec. 1947, 29, Jan. 1948, 9; May 1948, 9; Dec. 1948, 29, <3 (A. Mailer, AMNH). Rio Grande do Sul: Parque Estadual de Nonoai, Nonoai, 14 Jan. 1985, 39 (A. A. Lise, MCN 12811); Pelotas, 2 Mar. 1964, 9, 6 (C. M. Biezanko, MCZ); Machadinho, 8-14 Feb. 1989, 9 (A. B. Bonaldo, MCN 18191); Sobradinho, 10 Jan. 1985, 59, 43 (A. A. Lise, MCN 12889); Canela, 26 Dec. 1974, 49, 6\ imm. (A. A. Lise, MCN 02445); Santa Maria, 2 Nov. 1985, 69, 23 (A. D. Brescovit, MCN 14592, 14593); Sao Francisco de

Paula, 49 (MNRJ); Vacaria, 14 Jan. 1974,
\$ (A. A. Lise, MCN 00309a). ARGENTI-
NA Misiones: Cataratas de Iguazu, 5 Sept.
1963, 6 paratype (M. E. Galiano, MEG);
General Belgrano, Dec. 1972, 6 paratype
(M. E. Galiano, MEG). Corrientes: Colon,
Dec. 1975, <3 (M. E. Galiano, MEG). Bue-
nos Aires: Boulogne, Oct. 1938, 9 (R. F.
Prosen, MLP); Glew, 1969, 9 (D. Carpin-

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tero, MACN). Neuquen: Parque Nacional ae and trochanters each with one short

Lanin, Pucara, Feb. 1963, 9 (S. Schajov- macroseta. Abdomen oval. Total length 7.7

skoy, MACN). mm. Carapace 4.2 mm long, 3.3 wide, 1.5

wide behind lateral eyes. First femur 4.5

,....,_. UIX mm, patella and tibia 5.1, metatarsus 3.1,

Ocrepeira fiebrigi (Dahl), tarsus IA Second teUa and tibia 4Q mm

new combination third 2 9 f ourt h 39

Figures 192-199; Map 5 Note ^ males and females were collected

Aranea fiebrigi Dahl, 1906: 735. Syntypes: two females together.

males, eight males, two immatures from Paraguay Variation. Total length of females 8.0

[no locality], in ZMB, examined. Roewer, 1942: 842. to 1Q 1 mm Q f ma } es 67 to g 2 . Most fe-

Araneus fiebrigi: -Bonnet, 1955: 502. males have the scape of the epigynum tom

Description. Female syntype. Carapace off (Figs. 194-196). The posterior median

orange. Chelicerae, labium, endites or- plate of the epigynum is longer in some

orange. Sternum orange. Coxae orange; legs individuals than in the one illustrated. Some

light orange, with indistinct darker rings, males lack a macroseta on the third coxa.

Dorsum of abdomen brownish, anterior Description and figures were made from

darker and covering anterior pair of muscles- syntypes. However, the description of the

ocular scars as in Figure 189; venter with pair ocular square, height of clypeus, and width

of white patches (Fig. 197). Posterior median- of carapace behind lateral eyes was made

median eyes same diameter as anterior median- from a female from Sao Paulo State and a

dians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular male from Paraguay.

quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 197. Total length 9.7 mm. Carapace 4.7 mm long, 4.0 mm wide, 2.7 mm wide behind lateral eyes. First femur 4.0 mm, patella and tibia 5.2 mm, metatarsus 3.1 mm, tarsus 1.1 mm. Second patella and tibia 4.9 mm, third 3.2 mm, fourth 4.7 mm, and a keel on the "upper" face of the prong

Diagnosis. Only *O. gima* also has a laterally flattened epigynal scape. *Ocrepeira fiebrigi* can be separated from *O. gima* by the trapezoid shape of the posterior median plate (Fig. 195). The male can be separated from others by the sclerotized conductor, the short terminal apophysis,

Male syntype. Color as in female but of the median apophysis (Figs. 198, 199). with white cardiac mark on abdomen. Specimens were collected as they hung from a thread at night, another specimen was in an orb web in

terior median eyes 0.6 diameter apart. Chaco Dept, Paraguay.

Posterior median eyes their diameter apart. Specimens Examined. BRAZIL Pard:

Ocular quadrangle square. Height of clyp- Belem, 9 (C. F. Baker, MCZ). Goias: Jatai,

eus equal to 1 diameter of anterior median Fazenda Cachoeirinha, 9 (Exped. Dept

eyes. First coxa with hook and small pos- Zool., MZSP9560). Mat o Grosso: Chapada

terodorsal tubercle. Third and fourth cox- dos Guimaraes, Nov. 1963, 9 (M. Alvar-

Figures 186-191. *Ocrepeira galianoaen.* sp. 186-189, female. 186-188, epigynum. 186, ventral. 187, posterior. 188, lateral.

189, dorsal. 190, 191, left male palpus.

Figures 192-199. *O. fiebrigi* (Dahl). 192-198, female. 192-196, epigynum. 192, 194, ventral. 195, posterior. 193, 196, lateral.

194-196, scape torn off. 197, abdomen, ventral. 198, 199, male palpus.

Figures 200-204. *O. molle* n. sp. 200-202, female epigynum. 200, ventral. 201, posterior. 202, lateral. 203, 204, male palpus.

[Begin Page: Figs. 186-211, Page 103]

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Figures 205-211. *O. gima* n. sp. 205-209, female. 205-207, epigynum. 205, ventral. 206, posterior. 207, lateral. 208, dorsal.

209, abdomen, ventral. 210, 211, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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enga, AMNH); Cuiaba, Nov. 1963, 29 (M.

Alvarenga, AMNH). Sao Paulo : Estrada

Santa Amaro, Engo. Marcilac, km 48, 15

Jan. 1961, 9 (F. Werner, MZSP). Rio Gran-

de do Sul: Garruchos, S Borja, 10 Dec.

1975, 69, 33, 11 imm. (A. A. Lise, MCN

3223). PARAGUAY Chaco: Parque Na-

cional Defensores del Chaco, Cerro Leon,

18-27 Nov. 1984, 39, 43 (J. A. Kochalka,

IRNP).

Ocrepeira molle new species

Figures 200-204; Map 5

Holotype. Female holotype from Horco Molle, Tu-

uman Prov., Argentina, Nov. 1965 (A. Bach-

mann), in Galiano Coll., MACN no. 8916. The spe-

cific name is a noun in apposition after the type

locality.

Description. Female holotype. Carapace orange, cephalic region dusky with white setae. Chelicerae, labium, endites dusky orange. Sternum dark orange with white pigment. Coxae light orange; legs dark orange with darker rings, more distinct ventrally. Dorsum of abdomen gray, the anterior dark area includes anterior muscle scars (as in Figure 189); venter with tiny white pigment spots, dusky between epigynum and spinnerets. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.3 diameters apart. Posterior median eyes 1.5 diameters apart. Ocular quadrangle very slightly wider behind than in front. The height of the clypeus equal to 1.2 diameters of anterior median eyes. Total length 8.2 mm. Carapace 3.5 mm long, 2.8 wide, 1.8 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 3.8, metatarsus 2.7, tarsus 0.9. Second patella and tibia 3.6 mm, third 2.3, fourth 3.4.

Male from Argentina. Color as in female but dorsum of abdomen with a white cardiac mark dividing dark area and dark

areas not covering anterior pair of muscle scars. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 0.8 diameter apart. Posterior median eyes 1.4 diameters apart. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 di-

ameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 5.0 mm. Carapace 2.7 mm long, 2.3 wide, 1.3 wide behind lateral eyes. First femur 2.8 mm, patella and tibia 3.3, metatarsus 1.8, tarsus 0.8. Second patella and tibia 2.6 mm, third 1.7, fourth 2.5.

Variation. Total length of females 8.2 to 8.5 mm. The illustrations were made from the holotype.

Diagnosis. In ventral view (Fig. 200), the epigynum can be confused with that of *O. hirsuta* (Fig. 119), in posterior view (Fig. 201) with that of *O. fiebrigi* (Fig. 195). In lateral view, the tip of the median apophysis has the silhouette resembling a mouse head (Fig. 204).

Natural History. Specimens were collected by sweeping in the Yungas forest in Argentina.

Specimens Examined. BOLIVIA Santa Cruz: Santa Rosa, N Mataral, 1,100 m, 14-15 Dec. 1984, 49, 3 (L. Pefia, AMNH). Chuquisaca: E Monteagudo, 1,600 m, 21-24 Dec. 1984, 29, 23 (L. Pefia, AMNH). ARGENTINA Salta: El Rev National Park, Pozo Verde Trail, 950 m, 10-13 Dec. 1987, 33 (S., J. Peck, AMNH).

Ocrepeira gima new species

Figures 205-211; Map 5

Holotype. Female holotype, male paratype from Chapada dos Guimaraes, Mato Grosso State, Brazil, Nov. 1963 (M. Alvarenga), in AMNH. The specific name is an arbitrary combination of letters.

Description. Female holotype. Carapace orange with many short white setae. Chelicerae, labium, endites orange. Sternum orange with some darker streaks. Coxae, legs orange. Anterior of dorsum of abdomen dark, dark area enclosing first pair of muscle scars, posterior with faint

transverse bands (Fig. 208); venter gray

with a pair of white patches (Fig. 209).

Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter.

Anterior median eyes 0.9 diameter apart.

Posterior median eyes 1.3 diameters apart.

Ocular quadrangle slightly wider than

long, wider behind than in front. Height

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of clypeus equal to 1.3 diameters of an- Description. Female holotype. Carapace anterior median eyes. Posterior median eyes pace orange-brown with dark and white on swelling. Abdomen as in Figure 208. hairs. Chelicerae orange-brown. Labium, Total length 9.5 mm. Carapace 4.0 mm endites brown. Sternum orange, darker on long, 3.4 wide. 1.8 wide behind lateral eyes, sides. Coxae orange with brown margins; First femur 3.9 mm, patella and tibia 4.6, legs dark orange with darker rings. Dorsal metatarsus 2.9, tarsus 1.1. Second patella sum of abdomen white to brown with two and tibia 4.3 mm. third 2.8, fourth 4.1. black transverse bars posteriorly (Fig. 215);

Male paratype. Color as in female, but venter dusky. Posterior median eyes same

with white pigment under orange ster- diameter as anterior medians, laterals 0.7

num, legs with dark rings, and anterior diameter. Anterior median eyes 1 diam-

dark area of abdomen between tubercles etc apart. Posterior median eyes 2 di-
not enclosing anterior muscle scars. Pos- ameters apart. Ocular quadrangle wider
terior median eyes 0.9 diameter of anterior behind than in front. Height of clypeus
medians, laterals 0.5 diameter. Anterior equal to 1.2 diameters of anterior median
median eyes 0.8 diameter apart. Posterior eyes. Abdomen oval with two round humps
median eyes 1.4 diameters apart. Ocular facing anteriorly (Fig. 215). Total length
quadrangle slightly longer than wide, nar- 8.0 mm. Carapace 3.2 mm long, 2.7 wide,
rower behind than in front. Height of clyp- 1.7 wide behind lateral eyes. First femur
eus equal to 1 diameter of anterior median 3.1 mm, patella and tibia 3.5, metatarsus
eyes. Third, fourth coxae each with one 2.4, tarsus 0.9. Second patella and tibia 3.4
macroseta. Third and fourth trochanters mm, third 2.1, fourth 3.2.
each with one macroseta. Total length 5.2 Variation. Total length of females 7.0
mm. Carapace 2.9 mm long, 2.4 wide, 1.2 to 8.5 mm. The paratypes have a pair of
wide behind lateral eyes. First femur 3.1 white patches on the venter of the abdo-

mm, patella and tibia 3.2, metatarsus 2.0, men. The illustration was made from the tarsus 0.8. Second patella and tibia 2.9 mm, holotype.

third 2.0, fourth 2.7. Diagnosis. The shape of the ventral face

Note. Males and females were collected of the epigynum (Fig. 212) differs from at the same locality. that of other species and, unlike most oth-

Variation. Total length of females 9.5 ers, the lateral plates touch in the midline to 10.5 mm. Illustrations were made from in posterior view (Fig. 213).

the holotype and the paratype from the Specimens Examined. BRAZIL Santa type locality. Catarina: Pinhal, Dec. 1947, 29, Jan. 1948

Diagnosis. This species resembles O. 42, Dec. 1948-Jan. 1950, 22 paratypes (A. lurida (Figs. 160-166) and is distinguished Mailer, AMNH). Rio Grande do Sul: Gar- from it by the laterally flattened scape (or ruchos, Sao Borja, 9 Dec. 1975, 2 (A. A. scar of the torn scape), and by the curved Lise, MCN 3272).

shape of the terminal apophysis of the pal- pus (Fig. 210). *Ocrepeira maltana* new species

Specimens Examined. BRAZIL Mato Figures 216-217; Map 6

GWSSO: Rio XingU, Posto Jacare, Nov. 1961, Holotype. Male holotype and one male paratype from

2 (M. Alvarenga, F. Werner, AMNH); Ja- Machupicchu, above ruins, 2,600-2,800 m, Depto.

ciara, Nov. 1963, 2 (M. Alvarenga, AMNH). Cuzco, Peru, 1-5 July 1964 (B. Malkin), in AMNH.

The specific name is an arbitrary combination of

— . . . letters.

Ocrepeira pinhal new species

Figures 212-215; Map 5 Description. Male holotype. Carapace

reddish brown. Chelicerae dark brown,

Holotype Female holotype from Pinhal Santa Ca- j. jj j. h La bium, endites brown.

tanna State, Brazil, Dec. 1948 (A. Mailer), in AMNH. i t i <.

The specific name is a noun in apposition after the Sternum brown, posterior lighter. Coxae

type locality. dark orange. Legs red-brown with black

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rings. Dorsum of abdomen with anterior dark area covering the first pair of muscle scars, posterior with dark folium (Fig. 217); venter black. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1.1 diameters of anterior median eyes. Fourth coxa with one macroseta without tubercle. Total length 3.8 mm. Carapace 2.1 mm long, 1.6 wide, 0.9 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 2.9, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.4 mm, third 1.3, fourth 1.7.

Diagnosis. Unlike that of other species of the genus, this male resembles that of *Alpaida* species by having the tip of the paramedian apophysis covered by the cymbium, by having the axis of the radix at an almost right angle to the margin of the cymbium, by the long curved embolus, and by the shape of the median apophysis (Fig. 216). Also the tooth on the endite is opposed by a tooth on the palpal trochanter. However, the coloration of the abdo-

men and the pointed tip of the paramedian apophysis, hidden by the cymbium, place this male in *Ocrepeira*.

Ocrepeira bispinosa (Mello-Leitao),
new combination

Figures 218-223; Map 5

Carepalxis bispinosus Mello-Leitao, 1945: 173. Immature holotype and one smaller imm. paratype from Monjolinho, Corumba, Goias State, Brazil, in MZSP, examined. Brignoli, 1983: 264.

Wixia bicornuta Mello-Leitao, 1949: 19, fig. 11, imm. Immature holotype from confluence of Rio Cu-luene and Rio Xingu, Mato Grosso State, Brazil, in MNRJ, examined. Brignoli, 1983: 281. NEW SYNONYMY.

Synonymy. Since the types of both *C. bispinosus* and *W. bicornuta* are immature, the synonymy remains uncertain.

Description. Female from Santa Rita do Araguaia, Goias, Brazil. Carapace orange, cephalic region darkest. Chelicerae orange with a dark patch. Labium, endites dark orange. Sternum orange. Coxae orange;

legs orange with indistinct dark rings. Dorsum of abdomen with gray and black patches, no distinct marks (Fig. 221); venter dusky orange. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 1.7 diameters apart. Ocular quadrangle wider than long, wider behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen with a pair of pointed tubercles close together (Fig. 221). Total length 8.5 mm. Carapace 3.4 mm long, 3.1 wide, 2.0 wide behind lateral eyes. First femur 3.4 mm, patella and tibia 4.0, metatarsus 2.7, tarsus 0.9. Second patella and tibia 3.7 mm, third 2.5, fourth 3.4.

Male from Chapada dos Guimaraes, Mato Grosso, Brazil. Coloration as in female. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 2 diameters apart on a swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.4 diameters of anterior median eyes. Fourth coxa with one macroseta.

Fourth trochanter with one macroseta. Abdomen with two anterior spine-shaped tubercles as in *O. gnomo*, each with a sclerotized cap. Total length 4.8 mm. Carapace 2.9 mm long, 2.9 wide, 1.5 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.7, metatarsus 2.3, tarsus 1.1.

Figures 212-215. *Ocrepeira pinhaln.* sp., female. 212-214, epigynum. 212, ventral. 213, posterior. 214, lateral. 215, dorsal.

Figures 216-217. *O. maltana* n. sp., male. 216, left palpus. 217, dorsal.

Figures 218-223. *O. bispinosa* (Mello-Leitao). 218-221, female. 218-220, epigynum. 218, ventral. 219, posterior. 220, lateral.

221, dorsal. 222, 223, male palpus.

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Figures 224-231. *O. gnomo* (Mello-Leitao). 224-229, female. 224-226, epigynum. 224, ventral. 225, posterior. 226, lateral.

227, 228, dorsal. 229, lateral. 230, 231, male palpus.

Figures 232-235. *O. lisei* n. sp., female. 232-234, epigynum. 232, ventral. 233, posterior. 234, lateral. 235, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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Second patella and tibia 3.1 mm, third 2.0,
fourth 2.7.

Note. Males and females were matched because they have similar-shaped tubercles with a sclerotized cap on the abdomen. The upper prong of the left median apophysis of the palpus is broken, and the outline was drawn from the mirror image of the right (Fig. 223).

Variation. Total length of males 4.8 to 5.7 mm. Figures were made from the only two adults available.

Diagnosis. *Ocrepeira bispinosa* has a wider scape (Fig. 218) than does *O. gnomo* (Fig. 224), and the median apophysis of the male palpus has a "vertical" keel in its widest portion (Fig. 222), absent in the male of *O. gnomo* (Fig. 230).

Specimens Examined. BRAZIL Mato Grosso: Chapada dos Guimaraes, 18 Nov.

1983, 3 (M. Hoffmann, MCN 11986).

Goids: Santa Rita do Araguaia, Dec. 1963,

9 (M. Alvarenga, AMNH).

Ocrepeira gnomo (Mello-Leitao),

new combination

Figures 224-231 ; Map 5

Wixia gnomo Mello-Leitao, 1943: 195, fig. 25, imm.

Immature male holotype from Rio Grande do Sul,

Brazil, in MNRJ, examined. Brignoli, 1983: 281.

Description. Female from Montenegro,

Rio Grande do Sul, Brazil. Carapace or-

ange, cephalic region darkest, clypeus dark.

Chelicerae brown with a yellow patch. La-

bium, endites brown. Sternum light orange

underlain by white pigment spots and edge

dark. Coxae light orange; legs orange with

brown rings. Dorsum of abdomen white

with black and gray spots (Figs. 227, 228);

venter dusky. Cephalic region very wide

(Figs. 227, 228). Posterior median eyes 1.1

diameters of anterior medians, laterals 0.6

diameter. Anterior median eyes their di-

ameter apart. Posterior median eyes 1.2

diameters apart. Posterior median eyes on

swelling, facing forward and to sides. Oc-

ular quadrangle wider behind than in front.

Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with pro-

jecting tubercles (Figs. 227-229). Total length 5.4 mm. Carapace 2.3 mm long, 2.1 wide, 1.4 wide behind lateral eyes. First femur 2.1 mm, patella and tibia 2.7, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.4 mm, third 1.5, fourth 2.1. Abdomen 4.9 mm long.

Male from Santo Amaro, Sao Paulo, Brazil. Carapace orange, sides of cephalic region and area between median and lateral eyes brown. Chelicerae brown. Labium, endites orange. Sternum orange underlain by white pigment. Coxae orange; legs orange with indistinctly bordered dark rings. Dorsum of abdomen gray and white spotted, venter gray. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.7 diameter apart, 1.5 diameters from laterals. Posterior median eyes 1.5 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1.1 diameters of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Ab-

domen oval with two anterior tubercles.

Total length 5.3 mm. Carapace 2.8 mm

long, 2.5 wide, 1.3 wide behind lateral eyes.

First femur 2.7 mm, patella and tibia 3.4,

metatarsus 2.0, tarsus 0.9. Second patella

and tibia 2.7 mm, third 1.7, fourth 2.5.

Note. Males and females were collected together.

Variation. Total length of females 5.0

to 5.8 mm, of males 4.1 to 5.2. The anterior

tubercles of the abdomen are pointed (Fig.

228) or swollen humps (Fig. 227), and

proximal to each other pointing forward.

One individual has the pedicel inserted on

the posterior half of the abdomen. The

females illustrated (Figs. 224-229) were

made from two individuals from Rio

Grande do Sul: Figures 224-227, 229 from

the first, 228 from the second. The male

illustrated came from Engo. Marcilac, Sao

Paulo State.

Diagnosis. Females differ from those of

O. bispinosa by the narrow scape with par-

allel sides, from those of *O. lisei* (Fig. 233)

by the larger posterior median plate (Fig.

225). The male differs from that of O.

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bispinosa (Fig. 222) by having two "horizontal" keels above the base of the median apophysis (Fig. 230).

Specimens Examined. BRAZIL Sao

Paulo: Engo. Marcilac, Santo Amaro, 16-17 Dec. 1966, ♀ (P. de Biasi, MZSP 5400a); Honto Florestal [?], Dec. 1943, ♀, 6 (F. Lane, MZSP 4549). Parana: Curitiba, Nov. 1938, ♀ (F. S. Pereira, MZSP 7566). Rio Grande do Sul: Campo Bom, 28 Nov. 1979, ♀ (C. J. Becker, MCN 8778); Carazinho, 10 Nov. 1979, ♀ (H. Bischoff, MCN 8680); Montenegro, 1 Dec. 1977, ♀ (H. A. Gestal, MCN 7476); Triunfo, 20 Oct. 1947, ♀ (T. Arigony, MCN 6907).

Ocrepeira lisei new species

Figures 232-235; Map 5

Holotype. Female holotype from Canela, Rio Grande do Sul State, Brazil, 26 Dec. 1974 (A. A. Lise), in MCN no. 10569. The species is named after the collector.

Description. Female holotype. Carapace orange-brown, cephalic region and sides of thoracic region darker. Chelicerae distally dark brown. Labium, endites brown. Sternum orange-brown, lightest in center. Coxae orange-brown; legs orange-brown with darker patches. Dorsum of abdomen whitish with dark spots and posterior transverse bars (Fig. 235); venter black. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.7 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.5 diameters apart. Posterior median eyes on swelling and facing laterally. Ocular quadrangle wider behind than in front. Lateral eyes separated by their diameter. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen with pair of anterior-facing tubercles (Fig. 235). Total length 6.6 mm. Carapace 2.8 mm long, 2.3 wide, 1.5 wide behind lateral eyes. First femur 2.4 mm, patella and tibia 3.0, metatarsus 1.8, tarsus

0.7. Second patella and tibia 2.7 mm, third 1.7, fourth 2.7. Abdomen 6.5 mm long.

Variation. Total length of females 5.2 to 7.7 mm. The illustration was made from the holotype.

Diagnosis. *Ocrepeira lisei* differs from *O. gnomo* (Fig. 225) by having the lateral plates overlapping in posterior view of the epigynum (Fig. 233), and from *O. pinhal* (Fig. 212) by a scape with parallel sides (Fig. 232).

Specimens Examined. BRAZIL Rio de Janeiro: Petropolis, Dec. 1945, 9 (H. Sick, AMNH); Mar. 1946, 9 (H. Sick, AMNH). Santa Catarina: Pinhal, Dec. 1947, 29, Jan. 1948, 39 (A. Mailer, AMNH). Rio Grande do Sul: Bage, 23 Oct. 1981, 9 (A. A. Lise, MCN 9964); Porto Alegre, 9 (P. Buck, MNRJ).

Ocrepeira gulielmi new species

Figures 236-242; Map 5

Holotype. Female holotype, paratypes: two females and four males from La Planada, 7 km S of Cho-

cones, Depto. Nariño, Colombia, July 1986 (W. Eberhard), in MCZ. The species is named after colleague William Eberhard, the collector.

Description. Female holotype. Carapace light orange, cephalic region dusky with light setae. Chelicerae dusky orange. Labium, endites orange. Sternum, coxae light orange. Legs light orange, distal articles dusky. Anterior of dorsum of abdomen dark, posterior with five pairs of black spots emphasized by light rings (Fig. 239); venter black with a pair of white bands (Fig. 240). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart, 1.3 diameters from laterals. Posterior median eyes their diameter apart, 2.5 diameters from laterals. Posterior median eyes on a swelling. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Abdomen with indistinct humps (Fig. 239). Total length 5.0 mm. Carapace 2.3 mm long, 1.7 wide, 1.0 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.9, metatarsus 1.9, tarsus 0.9. Second patella and tibia 2.1 mm, third 1.3, fourth 1.7.

Male paratype from type locality. Color as in female, but legs faintly ringed. Posterior median eyes same diameter as an-

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terior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart, their diameter from laterals. Posterior median eyes 0.8 diameter apart, 1.8 diameters from laterals. Posterior median eyes on slight swelling. Ocular quadrangle square, slightly narrower behind than in front.

Fourth coxa with a macroseta on a tubercle. Right fourth trochanter with a macroseta, none on left. Total length 3.8 mm. Carapace 2.1 mm long, 1.7 wide, 0.8 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.8, metatarsus 1.6, tarsus 0.7. Second patella and tibia 2.3 mm, third 1.1, fourth 1.9.

Note. Males and females were collected together and have similar markings on the

abdomen.

Variation. The male described had a macroseta on the right trochanter but not on the left; none of the others had a fourth trochanter macroseta. Total length of females 4.5 to 5.6 mm, of males 3.6 to 3.8. The illustrations were made from the holotype and from a male from the type locality.

Diagnosis. Unlike that of other species the female scape has a swelling above its tip (Fig. 236). As in *O. atuncela* (Fig. 254) the posterior median plate has parallel sides (Fig. 237) but differs by a deep groove on each side of its base (Figs. 237, 238). The male differs from that of *O. steineri* (Fig. 240) by the shape of the base of the median apophysis (Fig. 241).

Specimens Examined. COLOMBIA

Narino: La Planada, 1,800 m, 7 km S Chocones, July 1986, 2, 33 paratypes (W. Eberhard, MCZ). ECUADOR Pichincha: Rio Faisanes, 15 km NE La Palma, 1,380 m, 17 Feb. 1979, 22 (L. Burnham, MCZ).

Ocrepeira steineri new species

Figures 243-248; Map 5

Holotype. Female holotype, female and male paratypes from Cerro de la Neblina, 1,690 m, Territ.

Feder. Amazonas, Venezuela, 12 Feb. 1985 (W. E. Steiner), in USNM. The species is named after the collector.

Description. Female holotype. Carapace dark orange with white setae, sides of thoracic region lightest. Chelicerae orange, distally brown. Labium, endites brown. Sternum orange, borders darker. Coxae dusky orange; legs orange with indistinct dark rings. Dorsum of abdomen white, gray, and with black caps on humps and black transverse bars posteriori (Fig. 246); venter black. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.3 diameters apart. Lateral eyes their diameter apart. Posterior median eyes on swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with tips of humps facing anteriorly (Fig. 246). Total length 4.8 mm. Carapace 2.5

mm long, 1.9 wide, 1.2 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.7, metatarsus 1.8, tarsus 0.8. Second patella and tibia 2.4 mm, third 1.4, fourth 2.2.

Male paratype. Color as in female except without the transverse bars on the abdomen; in its place there is a black folium. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle wider behind than in

Figures 236-242. *Ocrepeira gulielmi* n. sp. 236-240, female. 236-238, epigynum. 236, ventral. 237, posterior. 238, lateral. 239, dorsal. 240, abdomen, ventral. 241, 242, left male palpus.

Figures 243-248. *O. steineri* n. sp. 243-246, female. 243-245, epigynum. 243, ventral. 244, posterior. 245, lateral. 246, dorsal. 247, 248, male palpus.

Figures 249-252. *O. macaiba* n. sp., female. 249-251, epigynum. 249, ventral. 250, posterior. 251, lateral. 252, dorsal.

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Figures 253-256. *O. atuncela* n. sp., female. 253-255, epigynum. 253, ventral. 254, posterior. 255, lateral. 256, dorsal.

Figures 257-263. *O. anta* n. sp. 257-261, female. 257-259, epigynum. 257, ventral. 258, posterior. 259, lateral. 260, dorsal.

261, abdomen, ventral. 262, 263, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen as in female but smaller. Total length 4.0 mm. Carapace 2.5 mm long, 2.0 wide, 0.9 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.2, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.8 mm, third 1.7, fourth 2.3.

Note. The male was collected with the female.

Diagnosis. The female is separated from others by the lack of posterior median plate, and by the lateral plates with dorsal projection (Fig. 244). The base of the male's median apophysis (Fig. 247) is shaped differently from that of *O. guillemi* (Fig. 241).

Ocrepeira macaiba new species

Figures 249-252; Map 5

Holotype. Female holotype from Fazenda Canao, Macaiba, Rio Grande do Norte, Brazil, 15 Sept. 1951 (M. Alvarenga), in MZSP no. 5383. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace light orange, darkest on sides of thoracic region. Chelicerae, labium, endites orange. Sternum orange. Coxae, legs light orange. Dorsum of abdomen white with some dusky transverse bars posteriorly (Fig. 252); venter dusky with a pair of white spots in front of spinnerets, darkest anteriorly above pedicel. Posterior median eyes 1.3 diameters of anterior medians, laterals 0.9 diameter. Anterior median eyes 1.2 di-

ameters apart. Posterior median eyes 1.5 diameters apart. Posterior median eyes on a swelling. Ocular quadrangle wider behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen as in Figure 252. Total length 4.3 mm. Carapace 2.1 mm long, 1.8 wide, 1.1 wide behind lateral eyes. First femur 2.1 mm, patella and tibia 2.3, metatarsus 1.5, tarsus 0.6. Second patella and tibia 2.2 mm, third 1.4, fourth 2.0.

Diagnosis. *Ocrepeira macaiba* differs

from *O. steineri* (Fig. 244) in the shape of the lateral plates of the epigynum (Fig.

250).

Ocrepeira atuncela new species

Plate 1 ; Figures 253-256; Map 5

Holotype. Female from above Atuncela, 1,800 m, cloud forest, Depto. Valle, Colombia, 15 Mar. 1969 (W. Eberhard, no. 173p), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace, chelicerae, labium, endites yellow-

ish. Sternum yellowish. Coxae, legs yellowish, distally darker. Dorsum of abdomen light yellow with anterior dark marks, and with two indistinct longitudinal dusky bands (Fig. 256); venter with a black square between epigynum and spinnerets. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Lateral eyes 0.3 diameter apart. Posterior median eyes on swelling. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen shield-shaped with scattered long setae (Fig. 256). Total length 4.8 mm. Carapace 2.4 mm long, 1.9 wide, 1.1 wide behind lateral eyes. First legs lost. Second patella and tibia 2.7 mm, third 1.6, fourth 2.6.

Diagnosis. The epigynum of this female (Figs. 254, 255) differs from that of *O. guilielmi* by lacking the deep groove on the side of the base (Figs. 237, 238). The abdomen is differently marked and shaped (Fig. 256).

Natural History. Plate 1 illustrates the orb web.

Ocrepeira anta new species

Figures 257-263; Map 5

Holotype. Female holotype and male paratype from Alto de Minas, 30 km S of Medellin, 2,700 m, Depto. Antioquia, Colombia, 27 Aug. 1963 (P. B. Schneble), in MCZ. The specific name is an arbitrary combination of letters.

Description. Female holotype. Carapace, chelicerae, labium, endites yellow-

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ish. Sternum yellow. Legs yellowish. Dorsum of abdomen white with pairs of dark spots, each surrounded by a light ring (Fig. 260); venter dusky with a pair of white spots (Fig. 261). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.2 diameters apart. Posterior median eyes

their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1.1 diameters of anterior median eyes. Abdomen with indistinct humps (Fig. 260). Total length 5.5 mm. Carapace 2.5 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.9, metatarsus 2.0, tarsus 0.8. Second patella and tibia 2.7 mm, third 1.5, fourth lost.

Male paratype. Color as in female. Posterior median eyes 0.9 diameter of anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.6. Anterior median eyes their diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle slightly longer than wide, slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Total length 4.2 mm. Carapace 2.0 mm long, 1.6 wide, 0.9 wide behind lateral eyes. First femur 2.3 mm, patella and tibia 2.7, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.2 mm, third 1.3, fourth 1.9.

Note. Males and females were collected

together.

Variation. Total length of females 5.2 to 5.5 mm. Illustrations were made from the holotype and from the male collected with it.

Diagnosis. The female differs from that of other species by the narrow, sclerotized median plate of the epigynum (Fig. 258) and the short semicircular scape (Fig. 257). The male differs by the shape of the terminal and median apophyses (Figs. 262, 263).

Specimens Examined. COLOMBIA

Antioquia: Guarne, 2,000 m, Jul v- Aug. 1976, 29 (P. Schneble, MCZ).

Ocrepeira barbara new species

Figures 264-268; Map 6

Holotype. Female holotype from "El Abiseo", Rio Montecristo campsite, La Playa, Parque Nacional Rio Abiseo, Depto. San Martin, Peru, 19 Aug. 1987 (B. Roth), in MUSM. The specific name is a noun in apposition after the collector.

Description. Female holotype. Carapace light orange with short, white setae, darkest in eye region. Chelicerae, labium, endites light orange. Sternum orange, dusky around border. Coxae, legs dusky orange. Dorsum of abdomen with dark mark between tubercles, posterior with pairs of black streaks and indistinct transverse darker bands (Fig. 267); venter with a pair of white spots posteriorly (Fig. 268). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 0.9 diameter apart. Posterior median eyes on swelling. Ocular quadrangle square. Height of clypeus equal to 1.3 diameters of anterior median eyes. Abdomen with small humps (Fig. 267). Total length 8.2 mm. Carapace 3.6 mm long, 2.8 wide, 1.7 wide behind lateral eyes. First femur 3.6 mm, patella and tibia 4.7, metatarsus 3.1, tarsus 1.3. Second patella and tibia 4.2 mm, third 2.6, fourth 3.7.

Variation. Total length of females 5.8 to 8.2 mm. The specimen from Puma-marca lacks the white spots on the underside. The illustrations were made from the holotype.

Diagnosis. The female differs from others by the drop-shaped scape of the epigynum (Fig. 264) and by the median divisions of the posterior median plate (Fig. 265).

Specimen Examined. PERU Junin: Pumarca, 9 (K. Jelski, J. Sztolcman, PAN).

Ocrepeira macintyre new species

Figures 269-271 ; Map 6

Holotype. Male holotypes from Banos, 2,200-2,500 m, Tungurahua Prov., Ecuador, Apr. 1939 (W. C. Macintyre), in MCZ. The species is named after the collector.

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Description. Male holotype. Carapace orange, anterior of cephalic region and anterior of sides of thoracic region darker.

Chelicerae, labium, endites orange. Sternum orange with dusky margin. Coxae or-

ange; legs orange with brown rings. Abdomen with white cardiac mark, a black outline of folium, darker inside of folium than outside; venter gray with a pair of round white spots. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle longer than wide, narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta on tubercle. Fourth trochanter with one macroseta. Abdomen with anterior lateral tubercles (Fig. 271). Total length 6.2 mm. Carapace 3.3 mm long, 2.7 wide, 1.4 wide behind lateral eyes. First femur 3.8 mm, patella and tibia 4.3, metatarsus 2.7, tarsus 1.3. Second patella and tibia 3.6 mm, third 2.1, fourth 3.1.

Diagnosis. The sickle-shaped terminal apophysis and the swelling at the base of the median apophysis (Fig. 269) separate *O. macintyreii* from other species.

Ocrepeira tungurahua new species

Figures 272-277; Map 6

Holotype. Female holotype, one female and one male paratype from Tungurahua, 2,600 m, Tungurahua Prov., Ecuador, 6 May 1939 (W. Clarke-Macintyre), in AMNH. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace dark orange, with darker streaks, darkest at lateral eyes. Chelicerae, labium, endites dark orange. Sternum dark orange. Coxae, legs orange. Dorsum of abdomen orange-white with pairs of dark spots, the posteriormost pair connected by a transverse line (Fig. 275); venter dusky with indistinct pair of white longitudinal lines. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.7 diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 275. Total length 6.4 mm. Carapace 2.7 mm long, 2.3 wide, 1.4 wide behind lateral eyes. First femur 3.0 mm, patella and tibia 3.8, metatarsus 2.1, tarsus 1.1. Second patella and tibia 3.3 mm,

third 1.9 , fourth 2.9.

Male paratype from type locality. Color as in female but legs with faintly darker rings. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 0.7 diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter with one macroseta. Total length 5.4 mm. Carapace 2.4 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.2, metatarsus 2.0, tarsus 0.9. Second patella and tibia 2.9 mm, third 1.6, fourth 2.3.

Figures 264-268. *Ocrepeira barbara* n. sp., female. 264-266, epigynum. 264, ventral. 265, posterior. 266, lateral. 267, dorsal.

268, abdomen, ventral.

Figures 269-271 . *O. macintyre* n. sp., male. 269, 270, male left palpus. 271 , dorsal.

Figures 272-277. *O. tungurahua* n. sp. 272-275, female. 272-274, epigynum. 272, ventral. 273, posterior. 274, lateral. 275,

dorsal. 276, 277, male palpus.

Figures 278-283. *O. valderramai* n. sp. 278-281, female. 278-280, epigynum. 278, ventral. 279, posterior. 280, lateral. 281,

dorsal. 282, 283. male palpus.

Figures 284-286. *O. jamora* n. sp., male. 284, 285, palpus. 286, dorsal.

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Figures 287-289. *O. pista* n. sp., male. 287, 288, palpus. 289, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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Note. The male was collected with the female.

Diagnosis. The female differs from that of *O. barbara* by the circular shape of the posterior median plate (Fig. 273); the male differs from that of other species by the loop of the terminal apophysis and the

shape of the base of the median apophysis

(Fig. 276).

Ocrepeira valderramai new species

Figures 278-283; Map 6

Holotype. Male holotype with immature female on web in vegetation, from Paramo de Chingaza, Monteredondo, 3,100 m, Depto. Cundinamarca, Colombia, 20 July 1986 (C. Yalderrama), in MCZ.

The species is named after the collector.

Description. Female from Paramo de Monteserrate. Carapace brownish black with sides of thoracic region yellowish. Chelicerae, labium, endites dark brown. Sternum dark brown, lighter in center. Coxae yellowish; legs yellowish with brown rings and patches. Dorsum of abdomen with black marks and a white triangle (Fig. 281); venter black with a pair of white spots. Posterior median eyes 1.2 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.9 diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with a pair of lateral humps (Fig.

281). Total length 7.0 mm. Carapace 2.9 mm long, 2.3 wide, 1.3 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.8, metatarsus 2.5, tarsus 1.1. Second patella and tibia 3.4 mm, third 2.1, fourth 3.0.

Male holotype. Color darker than in female. Carapace with paired dark streaks. Abdomen with a dark, dorsal folium. Posterior median eyes 1.2 diameters of anterior medians, anterior laterals 1.2 diameters, posterior laterals 1 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Posterior median eyes on a swelling. Ocular quadrangle narrower behind than in front.

Height of clypeus equal to 0.9 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter without macroseta. Total length 5.0 mm. Carapace 2.7 mm long, 2.3 wide, 1.1 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.9, metatarsus 2.5, tarsus 1.1. Second patella and tibia 3.1 mm, third 1.9, fourth 2.6.

Note. The male and the females were collected from the same locality.

Variation. The epigynum of the para-type illustrated is asymmetrical (Fig. 278).

A penultimate female, just before the molt, had an oval scape narrow at both ends, the posterior median plate slightly wider and shorter than the one illustrated. Total length of males 5.0 to 5.2 mm. The illustrations were made from the male holotype and from a female from Paramo de Monserrate.

Diagnosis. The female differs from others with a narrow posterior median plate, *O. anta* (Figs. 257-259) and *O. planada* (Figs. 290-292), by the shape of the epigynal scape in ventral view (Fig. 278) and lateral view (Fig. 280). The male differs from those of *O. pista* (Figs. 287, 288) and *O. tungurahua* (Figs. 276, 277) by the raised triangular sculpturing of the base of the median apophysis (Fig. 282).

Natural History. One specimen was hanging in vegetation in a cloud forest, others in orb webs between flowers and leaves of *Espeletia grandiflora*.

Specimens Examined. COLOMBIA

Cundinamarca: Paramo de Monserrate, 7.5 km NE Bogota, in natural vegetation, 04°15'N, 74°01'W, 13 Sept. 1986, 9 (H. Sturm, MCZ); Paramo de Chingaza, 3,400 m, 04°31'N, 73°45'W, 14 Apr. 1986, imm., 15 Apr. 1986, 9 paratype, 22 Mar. 1987, 2 imm., 3,100 m, 23 Mar. 1987, S paratype (all C. Valderrama, CV, MCZ).

Ocrepeira jamora new species

Figures 284-286; Map 6

Holotype. Male holotype from Cerro Tinajillas, 3,100 m, S of Cuenca, Azuay Prov., Ecuador (L. Peha), in MCZ. The specific name is an arbitrary combination of letters.

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Description. Male holotype. Carapace orange with white setae, anterior of cephalic region and sides of thoracic region darkest. Chelicerae, labium, endites dark

orange. Sternum orange-brown. Coxae, legs orange with darker rings. Abdomen with white cardiac mark and brown outline of folium (Fig. 286); venter gray with a pair of white patches. Posterior median eyes 1.3 diameters of anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter without macroseta. Total length 5.0 mm. Carapace 2.5 mm long, 2.0 wide, 1.3 wide behind lateral eyes. First femur 3.0 mm, patella and tibia 3.4, metatarsus 1.9, tarsus 0.8. Second patella and tibia 2.8 mm, third 1.7, fourth 2.3.

Note. Illustrations were made from the holotype.

Diagnosis. *Ocrepeira jamora* differs from other male *Ocrepeira* by the shape of the terminal and median apophyses (Figs. 284, 285).

Specimen Examined. ECUADOR Tun-
gurahua: Tungurahua, 2,600 m, 6 June
1939, <3 (W. Clarke-Macintyre, AMNH).

Ocrepeira pista new species

Figures 287-289; Map 6

Holotype. Male holotype and one male paratype from
Maehupicchu, above ruins, 2,600-2,800 m, Depto.
Cuzco, Peru, 1-5 July 1964, beaten from vegeta-
tion, (B. Malkin), in AMNH. The specific name is
an arbitrary combination of letters.

Description. Male holotype. Carapace
reddish brown, sides of thoracic region
black with some white setae. Chelicerae
dark brown. Labium, endites, sternum
dark orange. Legs dark orange with darker
patches. Dorsum of abdomen with white
cardiac spot and dark folium (Fig. 289);
venter black with a pair of contrasting
white spots. Posterior median eyes same
diameter as anterior medians, laterals 0.8
diameter. Anterior median eyes their di-
ameter apart. Posterior median eyes their
diameter apart. Ocular quadrangle slight-
ly narrower behind than in front. Height
of clypeus equal to 1.1 diameters of an-

terior median eyes. Fourth coxa with one macroseta on a tubercle. Total length 6.7 mm. Carapace 3.9 mm long, 3.0 wide, 1.5 wide behind lateral eyes. First femur 3.9 mm, patella and tibia 4.7, metatarsus 2.8, tarsus 1.3. Second patella and tibia 4.0 mm, third 2.6, fourth 3.6.

Diagnosis. *Ocrepeira pista* differs from the male of *O. valderramai* by the large lower prong of the median apophysis and the semicircular offset near its base (Figs. 287, 288).

Ocrepeira planada new species

Figures 290-296; Map 6

Holotype. Female from La Planada, 1,800 m, 7 km S of Chocones, Depto. Nariño, Colombia, July 1986 (W. Eberhard, 3358), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, posterior of cephalic region dusky, darkest between median and lateral eyes. Chelicerae light orange. Labium, endites orange. Sternum dusky orange. Coxae orange; legs with darker and lighter

rings and patches. Dorsum of abdomen with folium and white cardiac mark (Fig. 293); venter dusky with a pair of white spots (Fig. 294). Posterior median eyes 0.9 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 2 diameters from laterals. Posterior median eyes their diameter apart, 3.5 diameters from laterals. Ocular quadrangle slightly longer than wide, narrower behind than in front. Height of clypeus equal to 0.7 diameter of anterior median eyes. Abdomen with a pair of humps (Fig. 293). Total length 9.2 mm. Carapace 3.9 mm long, 3.1 wide, 1.7 wide behind lateral eyes. First femur 3.8 mm, patella and tibia 4.8, metatarsus 3.3, tarsus 1.3. Second patella and tibia 4.4 mm, third 2.7, fourth 4.2.

Male from Rio Calima, Valle, Colombia.

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Color as in female. Posterior median eyes

0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.8 diameter apart, 1.5 from laterals. Posterior median eyes their diameter apart, 3.5 from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.6 diameter of anterior median eyes. Fourth coxa with large posterior tubercle bearing a macroseta. Abdomen as in female. Total length 6.8 mm. Carapace 4.4 mm long, 3.5 wide, 1.7 wide behind lateral eyes. First femur 4.7 mm, patella and tibia 5.5, metatarsus 3.1, tarsus 1.3. Second patella and tibia 4.6 mm, third 2.8, fourth 3.7.

Note. Males and females were matched because of similar markings.

Variation. Total length of females 6.5 to 10.2 mm, of males 5.9 to 6.8. Illustrations were made from the female holotype and a male from the type locality.

Diagnosis. Females can be separated from others with a narrow median posterior plate (Fig. 291) by the long scape having parallel sides and an attachment near the anterior of the base of the epigynum

(Figs. 290-292). The male can be separated by the distinctly shaped terminal and median apophyses (Figs. 295, 296).

Specimens Examined. COLOMBIA

Cundinamarca: road Fusagasuga to Anolaima, 2,800 m, 2 Sept. 1969, 9 (P., B. Wygodzinsky, AMNH). Valle: Rio Calima, nr. Lago Calima, 1,400 m, June 1976, 6 (W. Eberhard, MCZ). Narino: La Planada,

1,800 m, 7 km S Chocones, July 1986, 59, 6 paratypes (W. Eberhard, 3347, MCZ).

ECUADOR Pichincha: Quebrada La Plata, 2.1 km E Tandapi, 1,550 m, [00°25'N, 78°47'W], 3 Feb. 1979, 9 (L. Burnham, MCZ). Napo: 6.5 km S Baeza, 1,810 m, Feb. 1979, 9 (L. Burnham, MCZ). Rio Yocuchiqui [?], W slope of Andes, 9 (MCZ).

Ocrepeira ituango new species

Figures 297-301 ; Map 6

Holotype. Female holotype from Municipio de Ituango, 1,450 m, Depto. Antioquia, Colombia, 26 May 1989 (M. A. Serna), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, cephalic region with a black circular patch, black between median and lateral eyes. Chelicerae dark brown. Labium, endites dark brown. Sternum dark brown. Coxae orange with dark patches; legs orange with dark rings. Dorsum of abdomen damaged, with white cardiac mark (Fig. 300); venter black with a pair of white spots (Fig. 301). Posterior median eyes 0.7 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.8 diameter apart, 2.8 diameters from laterals. Posterior median eyes 0.8 diameter apart, 4.5 diameters from laterals. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 300. Total length 10.4 mm. Carapace 4.0 mm long, 3.5 wide, 1.9 wide

Figures 290-296. *Ocrepeira planada* n. sp. 290-294, female. 290-292, epigynum. 290, ventral. 291, posterior. 292, lateral.

293, dorsal. 294, abdomen, ventral. 295, 296, left male palpus.

Figures 297-301. *O. ituango* n. sp., female. 297-299, epigynum. 297, ventral. 298, posterior. 299, lateral. 300, dorsal. 301,

abdomen, ventral.

Figures 302-307. *O. saladito* n. sp. 302-305, female. 302-304, epigynum. 302, ventral. 303, posterior. 304, lateral.

305, dorsal.

306. 307, male palpus.

Figures 308-314. *O. cuy n. sp.* 308-312, female. 308-310, epigynum. 308, ventral. 309, posterior. 310, lateral. 311, dorsal.

312, abdomen, ventral. 313, 314, male palpus.

Figures 315-320. *O. abiseon. sp.* 315-318, female. 315-317, epigynum. 315, ventral. 316, posterior. 317, lateral. 318, dorsal.

319, 320, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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behind lateral eyes. First femur 4.3 mm,
patella and tibia 5.4, metatarsus 3.5, tarsus
1.3. Second patella and tibia 5.0 mm, third
3.1, fourth 4.6.

Diagnosis. The female can be separated

from *O. planada* (Figs. 290-292) by the posterior lateral plates of the epigynum which touch each other (Fig. 298).

Ocrepeira saladito new species

Figures 302-307; Map 6

Holotype. Female from near Saladito, 1,800 m, Depto. Valle, Colombia, Jan. 1977, (W. Eberhard, 1139), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace, chelicerae, labium, endites yellowish. Sternum yellowish. Coxae, legs yellowish with indistinct dusky rings. Dorsum of abdomen with anterior of each side black and posteriorly six pairs of spots highlighted by white rings, alternating black and red, first pair black, last pair red (Fig. 305); venter dusky, black in median area. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 1.3 diameters apart. Posterior median eyes 1.1 diameters apart. Laterals separated by half their diameter. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal

to 1 diameter of the anterior median eyes.

Abdomen as in Figure 305. Total length 4.7 mm. Carapace 2.3 mm long, 1.7 wide, 1.1 wide behind lateral eyes. First femur 2.5 mm, patella and tibia 2.8, metatarsus 1.8, tarsus 0.9. Second patella and tibia 2.4 mm, third 1.3, fourth 2.0.

Male from type locality. Color and markings as in female. Posterior median eyes same diameter as anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, 1.2 diameters from laterals. Posterior median eyes their diameter apart, 2 diameters from laterals. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen as in female. Total length 4.2 mm.

Carapace 2.1 mm long, 1.7 wide, 0.8 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.0, metatarsus 1.8, tarsus 0.8. Second patella and tibia 2.2 mm, third 1.3, fourth 1.7.

Note. Males and females came from the same locality and have similar distinctive

markings on the abdomen.

Variation. The second female has the base of the epigynum more oval; the scape has parallel sides. Total length of males 4.0 to 4.2 mm.

Diagnosis. The female differs from others by the wide posterior median plate (Fig. 303), the male by the shape of the terminal and median apophyses (Figs. 306, 307)

Paratypes. COLOMBIA Valle: above Saladito, 1,800 m, 1975, 9, 1979, <3 (W. Eberhard, MCZ).

Ocrepeira cuy new species

Figures 308-314; Map 6

Holotype. Male holotype and female paratype from Pampa del Cuy, montane forest, Parque Nacional Abiseo, 3,550 m, Depto. San Martin, Peru, 5-12 Mar. 1988 (D. Silva D.), in MUSM. The specific-name is a noun in apposition after the type locality.

Description. Female paratype collected with male. Carapace orange-yellow, with a dark patch on each side and long white

setae above lateral eyes; clypeus dark. Chelicerae dark brown. Labium, endites brown. Sternum orange in center, dark all around. Coxae yellowish; legs yellowish with brown rings and black patches. Dorsum of abdomen with dark spot on each tubercle and paired dark streaks posteriorly (Fig. 311); venter with a pair of white marks (Fig. 312). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart. Posterior median eyes slightly more than their diameter apart. Posterior median eyes on swelling. Ocular quadrangle slightly longer than wide. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 311. Total length 8.0 mm. Carapace 3.4 mm long, 2.9 wide, 1.6 wide behind lateral eyes. First femur 3.4 mm, patella

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and tibia 4.3, metatarsus 2.7, tarsus 0.9.

Second patella and tibia 3.7 mm, third 2.3, fourth 3.2.

Male holotype. Color as in female. Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes their diameter apart.

Posterior median eyes their diameter apart.

Posterior median eyes on swelling. Ocular quadrangle square. Height of clypeus equal to 0.9 diameter of anterior median eyes.

Fourth coxa with one macroseta. Fourth trochanter without macroseta. Total length

6.2 mm. Carapace 3.2 mm long, 2.7 wide,

1.3 wide behind lateral eyes. First femur 3.7 mm, patella and tibia 4.0, metatarsus 2.6, tarsus 1.0. Second patella and tibia 3.1 mm, third 1.9, fourth 2.7.

Note. Males and females were collected together.

Variation. Total length of females 8.0 to 8.3 mm, of males 5.9 to 6.2. The illustrations were made from the male holotype and a female paratype.

Diagnosis. The female has a smaller scape (Fig. 308) than the very similar *O. abiseo* (Fig. 315). The male differs from *O. abiseo* (Figs. 319, 320) by having both prongs of the median apophysis about the same length (Figs. 313, 314)'.

Paratypes. All from type locality: 8 Mar. 1988, 52, 2 Mar. 1988,3 (all D. Silva D., MUSM).

Ocrepeira abiseo new species

Figures 315-321; Map 6

Holotype. Male holotype, four female paratypes, from Parque Nacional Abiseo, Puerta del Monte, 3,300 m, Depto. San Martin, Peru, 4 Mar. 1988 (D. Silva D., A. Salirrosas), in MUSM. The specific name is a noun in apposition after the type locality.

Description. Female paratype collected with male. Carapace orange, with a dark patch on each side, posterior of cephalic region, sides of cephalic and thoracic region dark, white hair-like setae behind lateral eyes. Chelicerae dark brown with median light patch. Labium black, endites

brown to orange. Sternum orange in middle, each side dark brown. Coxae yellowish

with brown patches; legs yellowish with dark brown rings and patches. Dorsum of abdomen with white cardiac mark and with folium outline posteriorly (Fig. 318); venter with pair of light patches posteriorly. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle narrower behind than in front. Posterior median eyes on slight swelling. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen with pair of humps (Fig. 318). Total length 10.2 mm. Carapace 4.2 mm long, 3.4 wide, 1.8 wide behind lateral eyes. First femur 4.4 mm, patella and tibia 5.2, metatarsus 3.3, tarsus 1.3. Second patella and tibia 4.8 mm, third 2.9, fourth 4.2.

Male holotype. Color as in female, but legs light orange. Posterior median eyes same diameter as anterior medians, anterior laterals 0.8 diameter, posterior laterals 0.6. Anterior median eyes 0.8 diameter apart, 1.5 diameters from laterals. Poste-

rior median eyes 0.7 diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter without macroseta. Abdomen with pair of tubercles. Total length

8.2 mm. Carapace 4.4 mm long, 3.6 wide, 1.8 wide behind lateral eyes. First femur

4.3 mm, patella and tibia 5.4, metatarsus 3.5, tarsus 1.3. Second patella and tibia 4.5 mm, third 2.7, fourth 3.7.

Note. Males and females were collected together.

Variation. Total length of females 8.1 to 10.8 mm, of males 6.1 to 8.2. The scape of the epigynum (when present) is variable in shape; it is torn off from most individuals. The illustrations were made from the male holotype and the female collected with it.

Diagnosis. Females can be confused with those of *O. cuy* (Figs. 308-310) and *O.*

tinajillas (Figs. 322-324); they differ by having a larger scape (Fig. 315) than that of *O. cuy* and a shorter scape (Fig. 317)

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than that of *O. tinajillas* (Fig. 324). The male differs from that of *A. cuy* (Figs. 313, 314) by having one prong of the median apophysis longer than the other (Figs. 319-321) and from *O. tinajillas* (Figs. 327, 328) by the differently shaped tegulum and median apophysis (Figs. 319, 320).

Natural History. The collecting sites were montane forest.

Specimens Examined. PERU San Martin: Parque Nacional Abiseo, Puerta del Monte, 3,300 m, 4 Mar. 1988, 52 paratypes, 13 Mar. 1988, 82, 2<3 paratypes, 14 Mar. 1988, 2 paratype (D. Silva D., A. Salirrosas, MUSM); Pampa del Cuy, 3,550 m, 5-12 Mar. 1988, 22, 6 (D. Silva D., MUSM).

Ocrepeira tinajillas new species

Figures 322-328; Map 6

Holotype. Female holotype and male paratype and one immature from Cerro Tinajillas, 3,100 m, S of Cuenca, Azuay Prov., Ecuador, 18-21 Mar. 1965 (L. Pena), in MCZ. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange. Chelicerae orange. Labium, endites brown. Sternum orange, brown around border. Coxae orange and brown; legs orange with brown rings. Dorsum of abdomen with a dark sickle-shaped area anteriorly between tubercles and a small posterior folium (Fig. 325); venter dusky with a pair of white spots (Fig. 326). Eyes subequal. Anterior median eyes 1.2 diameters apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Abdomen subspherical, with widely separated humps (Fig. 325). Total length 8.2 mm. Carapace 3.7 mm long, 2.8 wide, 1.8 wide behind lateral eyes. First femur 3.6 mm, patella and tibia 4.7, meta-

tarsus 3.1, tarsus 1.3. Second patella and tibia 4.2 mm, third 2.5, fourth 3.8.

Male paratype. Color as in female, but abdomen with a white cardiac mark and pairs of dark patches posteriorly. Posterior median eyes 1.2 diameters of anterior medians, anterior laterals 0.9 diameter, posterior laterals 0.8. Anterior median eyes 1.2 diameters apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1.2 diameters of anterior median eyes. Fourth coxa with one macroseta on a tubercle. Fourth trochanter without macroseta. Total length 6.4 mm. Carapace 3.8 mm long, 3.1 wide, 1.5 wide behind lateral eyes. First femur 3.9 mm, patella and tibia 4.7, metatarsus 2.7, tarsus 1.1. Second patella and tibia 3.8 mm, third 2.4, fourth 3.4.

Note. The male was collected with the female.

Variation. Total length of females 6.2 to 8.7 mm, of males 4.5 to 6.4. The scape of the second female's epigynum has par-

allel sides and is distally rounded; also the embolus and the conductor of the second male are of slightly different shape. The illustrations were made from the female holotype and the male paratype collected with it.

Diagnosis. The epigynum of *O. tinajillas* (Figs. 322-324) has a longer scape than that of *O. cuy* (Fig. 310) and *O. abiseo* (Fig. 317). The male has differently shaped tegulum and terminal apophysis (Figs. 327, 328) from those of *O. abiseo* (Figs. 319, 321).

Specimens Examined. COLOMBIA

Valle: Arriba de Saladito, 1973, 6 (W.

Figure 321. *Ocrepeira abiseo* n. sp., male palpus; embolus (E), terminal apophysis (A), conductor (C), and paramedian apophysis

(PM).

Figures 322-328. *O. tinajillas* n. sp. 322-326, female. 322-324, epigynum. 322, ventral. 323, posterior. 324, lateral. 325, dorsal.

326, abdomen, ventral. 327, 328, left male palpus.

Figures 329-333. *O. darlingtoni* (Bryant). 329-332, female. 329-331, epigynum. 329, ventral. 330, posterior. 331, lateral. 332,

dorsal. 333, male palpus.

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Figures 334-339. *O. magdalena* n. sp. 334-337, female. 334-336, epigynum. 334, ventral. 335, posterior. 336, lateral. 337,

dorsal. 338, 339, male palpus.

Figures 340-344. *O. lapeza* n. sp., female. 340-342, epigynum. 340, ventral. 341, posterior. 342, lateral. 343, dorsal. 344,

abdomen, ventral.

Figures 345-347. *O. aragua* n. sp.. male. 345, 346, palpus. 347, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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Eberhard, MCZ). ECUADOR Loja: Zamora, 1,800-2,200 m, 28 Oct. 1977, 9 (L. Pena, AMNH).

Ocrepeira darlingtoni (Bryant),

new combination

Figures 329-333; Map 6

Parawixia darlingtoni Bryant, 1945: 382, figs. 14, 16
(not 21), 8. Male holotype (not female allotype)
from Villa Altagraeia, Dominican Republic, His-
paniola, in MCZ. Brignoli, 1983: 278.

Wixia darlingtoni Levi, 1992: 8.

Note. The female allotype of *Parawixia*
darlingtoni is the holotype of *Aculepeira*
visite Levi, 1991a: 307.

Description. Female from Valle de Polo,
Dominican Republic. Carapace orange,
eye region darkest. Chelicerae orange, dis-
tally darker. Labium, endites orange. Ster-
num light orange with brown border. Cox-
ae light orange; legs indistinctly ringed with
light orange. Dorsum of abdomen with
white anterior median tubercle, dark an-
terior to a line between lateral tubercles
(Fig. 332); venter with a pair of light
patches separated by their diameter. Pos-
terior median eyes same diameter as an-
terior medians, laterals 0.8 diameter. An-
terior median eyes their diameter apart.
Posterior median eyes 1.3 diameters apart.
Ocular quadrangle narrower behind than

in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen with anterior median tubercle [posterior of abdomen damaged] (Fig. 332). Total length 6.5 mm. Carapace 2.7 mm long, 2.1 wide, 1.4 wide behind posterior lateral eyes. First femur 2.7 mm, patella and tibia 3.5, metatarsus 2.1, tarsus 0.9. Second patella and tibia 3.2 mm, third 1.8, fourth 2.7.

Male holotype. Color as in female except thoracic region darker than cephalic region. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to slightly less than 1 diameter of anterior median eyes. Fourth coxa with one macroseta.

Fourth trochanter with one macroseta. Second femur with a ventral row of macrosetae; the most proximal one longer than diameter of femur and on a tubercle. Abdomen without anterior median tubercle. Total length 4.4 mm. Carapace 2.2 mm long, 1.8 wide, 1.0 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.1,

metatarsus 1.9, tarsus 0.9. Second patella and tibia 2.5 mm, third 1.5, fourth 2.1.

Note. Males and females were collected together. The male from Haiti had an additional macroseta on the third coxa and the carapace had symmetrical radiating dark bands originating from thoracic area.

Variation. Total length of females 4.6 to 6.5 mm, of males 4.4 to 4.5. The female from La Cienaga had rounded lateral tubercles and some additional pairs of rounded humps on sides. The specimen from near Banano had a more slender epigynum and lacked the median anterior tubercle on the abdomen. Illustrations were made from the male holotype and a female from Valle de Polo.

Diagnosis. The female is contrastingly colored with an anterior median tubercle on the abdomen (Fig. 332) and the epigynum, unlike other species, has a strong glossy, curved scape (Figs. 329-331); the male differs from others by the distinct terminal and median apophyses (Fig. 333).

Specimens Examined. DOMINICAN

REPUBLIC Barahona: Valle de Polo, 700-

850 m, 18 Aug. 1935, 5, 23, imm. (W. G.

Hassler, AMNH). La Vega: La Ciénaga,

along Arrovo Frio, 19°04'N, 70°51'W, 8

Jan. 1986, 9 (S. Larcher, F. Mora, C. Dom-

inguez, USNM). Pedernales: La Aguita, 1

km W antes de Cruce del Banana, 14 Aug.

1991 (K. Guerrero, D. Matusik, MNSD).

HAITI 40 km from Aux Cayes, 600-900

m, 29 Aug. 1935, <3 (W. G. Hassler, AMNH).

Ocrepeira magdalena new species

Figures 334-339; Map 6

Holotype. Female holotype from San Pedro, 1,200

m, Sierra Nevada de Santa Marta, Depto. Mag-

dalena, Colombia, 16 May 1975 (J. A. Kochalka),

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in MCZ. The specific name is a noun in apposition

after the type locality.

Description. Female holotype. Cara-

pace yellowish, darker on cephalic area and sides of thorax, cephalic region with white setae. Chelicerae yellowish, distally darker. Labium, endites dusky. Sternum orange. Coxae yellow; legs yellow with dark rings. Dorsum of abdomen black anteriorly, posterior light with indistinct transverse bars (Fig. 337); sides dark dusky; venter light dusky. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes

1.3 diameters apart. Posterior median eyes

1.4 diameters apart. Laterals separated by about 0.4 diameter. Ocular quadrangle, wider than long, wider behind than in front. Posterior median eyes on swelling facing anterolaterally. Height of clypeus equal to 1.3 diameters of anterior median eyes. Abdomen shield-shaped (Fig. 337).

Total length 5.7 mm. Carapace 3.0 mm long, 2.5 wide, 1.6 wide behind lateral eyes 1.6. First legs lost. Second patella and tibia 3.2 mm, third 2.0, fourth 3.0.

Male paratype. Color as in female except carapace darker orange, with white setae and scales in cephalic region, and legs

without rings but distally darker. Posterior median eyes 0.8 diameter of anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.7. Anterior median eyes 1.2 diameters apart. Posterior median eyes

1.5 diameters apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae without macroseta. Abdomen as in female. Total length 3.4 mm. Carapace 2.0 mm long, 1.5 wide, 0.8 wide behind lateral eyes 0.8 wide. First femur 2.9 mm, patella and tibia 3.1, metatarsus 1.7, tarsus 0.6. Second patella and tibia 2.6 mm, third 0.3, fourth 1.7.

Note. Males and females were matched because they came from the same locality and have similarly shaped abdomens.

Diagnosis. The female differs from that of *O. darlingtoni* (Figs. 329-331) by having a wider scape of the epigynum (Fig. 334) with a sharper curve in lateral view (Fig. 336), the male differs from all other species by having a median apophysis

"higher" than long (Figs. 338, 339).

Paratype. From type locality, 19 May

1975, 8 (J. A. Kochalka, MCZ).

Ocrepeira lapeza new species

Plate 1; Figures 340-344; Map 6

Holotype. Female holotype from Hacienda Mozam-

bique, 500 m, 15 km SW of Puerto Lopez, Depto.

Meta, Colombia (W. Eberhard, 1491), in MCZ. The

specific name is an arbitrary combination of letters.

Description. Female holotype. Cara-

pace orange, dusky between median and

lateral eyes, and with paired dusky spots.

Chelicerae, labium, endites orange. Ster-

num dark orange with three pairs of light-

er patches. Coxae orange with dusky

patches; legs orange, only fourth with dark

rings. Dorsum of abdomen black anteri-

orly with a median brown mark posteri-

orly (Fig. 343); venter black with two pairs

of white spots and a white patch on each

side of booklungs (Fig. 344). Posterior me-

lian eyes same diameter as anterior me-

lian eyes, laterals 0.9 diameter. Anterior me-

lian eyes their diameter apart, 2.5

diameters from laterals. Posterior median

eyes their diameter apart, 4 diameters from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen as in Figure 343. Total length 9.0 mm. Carapace 4.1 mm long, 3.0 wide, 1.8 wide behind lateral eyes. First femur 4.2 mm, patella and tibia 5.2, metatarsus 3.1, tarsus 1.2. Second patella and tibia 4.5 mm, third 2.7, fourth 4.6.

Note. The abdomen of the holotype is damaged and separate from the cephalothorax. The carapace has the spots (Fig. 343), and the sternum the pattern of a *Parawixia* species (Levi, 1992, fig. 6). The parts probably belong together.

Diagnosis. The female differs from others by having a minute scape and two dark spots in ventral view (Fig. 340).

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Natural History. Plate 1 illustrates the

orb web of *O. lapeza*.

Ocrepeira aragua new species

Figures 345-347; Map 6

Holotype. Male holotype from Rancho Grande, near Maracay, Est. Aragua, Venezuela, 14-31 Mar. 1946, in AMNH. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace orange, sides of thoracic region darker. Chelicerae, labium, endites orange. Sternum light orange. Legs orange. Dorsum of abdomen with paired black spots forming outline of a folium (Fig. 347). Posterior median eyes 0.8 diameter of anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.8. Anterior median eyes 0.9 diameter apart. Posterior median eyes their diameter apart. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta. Abdomen with distinct lateral tubercles (Fig. 347). Total length 3.2 mm. Carapace 1.9 mm long, 1.6 wide, 0.9 wide

behind lateral eyes. First femur 2.3 mm, patella and tibia 2.5, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.1 mm, third 1.1, fourth 1.8.

Diagnosis. The male differs from others in the projection on the "lower" edge of the widest area of the median apophysis (Figs. 345, 346).

Ocrepeira maraca new species

Figures 348-353; Map 6

Holotype. Female holotype from Estacao Ecologica de Maraca, Ilha de Maraca, Rio Uraricoera, Roraima Territ, Brazil, 25 July 1987 (L. P. Albu-

querque), in MCN no. 19282. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, cephalic region darkest. Chelicerae, labium, endites orange. Sternum orange. Coxae orange; legs orange. Dorsum of abdomen white, anterior black (Fig. 351); venter light dusky. Posterior median eyes same diameter as anterior medians, laterals 0.7 diameter. Anterior median eyes 0.8 diameter apart. Posterior median eyes

0.8 diameter apart on only slight swelling.

Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.6 diameter of anterior median eye. Abdomen shield-shaped (Fig. 351). Total length 7.0 mm. Carapace 3.1 mm long, 2.5 wide, 1.5 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 4.0, metatarsus 2.5, tarsus 1.0. Second patella and tibia 3.7 mm, third 2.0, fourth 3.1.

Male paratype from type locality. Color lighter than in female. Dorsum of abdomen framed by black, sides black grading ventrally into dusky venter. Posterior median eyes 0.9 diameter of anterior medians, anterior laterals 0.7 diameter. Anterior median eyes their diameter apart.

Posterior median eyes 1.1 diameters apart and each on a swelling. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.8 diameter of anterior median eyes. Third, fourth coxae each with one long macroseta. Fourth trochanter with one macroseta. Total length 4.7 mm. Carapace 2.5 mm long, 1.9 wide, 0.9 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.2, metatarsus 1.7, tarsus

0.8. Second patella and tibia 2.6 mm, third
1.5, fourth 2.1.

Note. Males and females were collected
together. The epigynum appears as if the

Figures 348-353. *Ocrepeira maraca* n. sp. 348-351, female. 348-350, epigynum. 348, ventral. 349, posterior. 350,
lateral.

351, dorsal. 352, 353, left male palpus.

Figures 354-359. *O. yaelae* n. sp. 354-358, female. 354-356, epigynum. 354, ventral. 355, posterior. 356, lateral.
357, dorsal.

358, abdomen, ventral. 359, male palpus.

Figures 360-363. *O. duocypha* (Chamberlin), female. 360-362, epigynum. 360, ventral. 361, posterior. 362, lateral.
363, dorsal.

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Figures 364-366. *O. jacara* n. sp., male. 364, 365, palpus. 366, dorsal.

Figures 367, 368. *O. comaina* n. sp., male. 367, palpus. 368, dorsal.

Figures 369-371. *O. heredia* n. sp., male. 369, 370, palpus. 371, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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tip of the lobe might break when mating,
but none were torn.

Variation. Total length of females 5.8
to 9.0 mm, of males 3.9 to 4.7. Illustrations
were made from specimens from Terr. Ro-
raima.

Diagnosis. The posterior median eyes
of this species, unlike those of most *Ocre-
peira* species, face dorsally (Fig. 351). The
short round scape or lobe of the epigynum,
with a dark, curved line at its base (Figs.
348, 350), and the "deep" position of the
posterior median plate (Fig. 349) readily
separate females from those of other spe-
cies. The male has only a small terminal
apophysis and two teeth at the base of the
median apophysis (Figs. 352, 353).

Specimens Examined. VENEZUELA

Carabobo: San Esteban, 26 Jan. 1940, 6 (P.

Andruze, AMNH). COLOMBIA Cesar: La

Jagua, 15 km S Becerril, 20-21 July 1968,

29, 2 imm. (B. Malkin, AMNH). BRAZIL

Roraima: Estac. Ecol. Maraca, 29. Mar.

1987, <5 paratype (M. E. L. de Souza, IN PA).

Amazonas: Maues, 1 Aug. 1983, 2 (L. P.

Alberquerque, INPA); Manaus, Reserva

Ducke, Aug. 1971, 2 (M. E. Galiano, MEG).

Pard: Fazenda Velha, Belem, July 1970, 2

(M. E. Galiano, MEG); Jacare-Acanga, Dec.

1968, 32, 6 (M. Alvarenga, AMNH). Mato

Grosso: 260 km N Xavantina, 12°49'S,

51°46'W, 400 m, Feb.-Apr. 1969, 26 (Xav-

antina-Cachimbo Exped., MCZ).

Ocrepeira yaelae new species

Figures 354-359; Map 6

Holotype. Male holotype and female paratype from Rio Palenque, 47 km SW of Santo Domingo de los Colorados, road to Quevedo, 150 m, Pichincha Prov., Ecuador, 14 Mar. 1982 (Y. D. Lubin, YDL-378), in MCZ. The species is named after collector and colleague Yael Lubin.

Description. Female paratype from Via Puerto Quito. Carapace orange, darker anteriorly; clypeus with dark dusky transverse band. Chelicerae, labium, endites dusky orange. Sternum dusky orange. Coxae, legs dusky orange. Dorsum of abdomen white, anterior black (Fig. 357); sides black,

sharply bordered toward dorsum, grading

into dusky venter. Venter with two indistinct white patches (Fig. 358). Posterior median eyes same diameter as anterior medians, anterior laterals 0.7 diameter, posterior laterals 0.6. Anterior median eyes 0.8 diameter apart. Posterior median eyes their diameter apart. Lateral eyes separated by 0.4 diameter of posterior laterals. Posterior median eyes on very slight swelling. Ocular quadrangle square. Height of clypeus equal to 0.6 diameter of anterior median eyes. Abdomen shield-shaped (Fig. 357). Total length 7.0 mm. Carapace 2.8 mm long, 2.4 wide, 1.4 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.5, metatarsus 2.2, tarsus 0.9. Second patella and tibia 3.4 mm, third 1.9, fourth 2.7. Abdomen 4.9 mm long.

Male paratype from Pedro Vicente Maldonado. Coloration as in female but carapace with elongate dusky patch on each side of thoracic region, reddish around swollen posterior median eyes. Abdomen with white cardiac mark in center of dark area anterior to and between tubercles,

posteriorly with four pairs of streaks outlining a folium. Posterior median eyes 0.9 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart, slightly more than 1 diameter from laterals. Posterior median eyes 0.8 diameter apart, slightly more than 2 diameters from laterals. Posterior median eyes on slight swelling facing sides. Third coxa with small macroseta, fourth with macroseta on a tubercle. Fourth trochanter without macroseta. Total length 3.9 mm. Carapace 2.0 mm long, 1.5 wide, 0.8 wide behind lateral eyes. First femur 2.2 mm, patella and tibia 2.5, metatarsus 1.5, tarsus 0.7. Second patella and tibia 2.1 mm, third 1.3, fourth 1.8.

Note. Males and females were collected together.

Variation. The male holotype, not the paratype described, has a macroseta on the fourth trochanter. Total length of females 4.8 to 7.0 mm, of males 3.6 to 3.9. Figures 354-358 were prepared from the paratype from Via Puerto Quito, Figure 359 was

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made from the paratype from Pedro Vicente Maldonado.

Diagnosis. The female differs from many *Ocrepeira* females by having the posterior median eyes face dorsally (Fig. 357), and from all by the weakly sclerotized epigynum having a scape with parallel sides (Fig. 354) and having a very wide posterior median plate framed by small lateral plates (Fig. 355). The male differs from all others by the very distinctive shape of the median apophysis, with a dark round spot on its widest area (Fig. 359).

Natural History. A female was found at night in an asymmetrical vertical orb, 20 cm below hub, 10 cm above; the male holotype was on the periphery of the web. The habitat was dense, old, very wet second-

growth rain forest understory (Y. Lubin, personal communication). Female paratypes from Tinalandia were hand-collected, the male was collected as a result of beating vegetation.

Specimens Examined. ECUADOR Pichincha: 4 km NE of Pedro Vicente Maldonado, km 113 on road from Quito to Puerto Quito, ENDESA Compartamento Madereiro, 0°05'N, 79°07'W, 9-12 July, 1988, 6 (W. Maddison, MCZ 88-014); Tinalandia, 12 km E Santo Domingo de los Colorados, 750 m, 11-17 May 1986, 9, 6\5 imm. (G. B. Edwards, FSCA); Via Puerto Quito, km 113, 31 Oct. 1984, 9 (L. Aviles, MECN). Bolivar: Balzapampa, 700-900 m, May 1938, 9 (W. Clarke-Macintyre, AMNH). Loja: betw. Celica and Alamor, 1,100-2,200 m, 16-17 Aug. 1977, 9 (L. Pefia, AMNH).

Ocrepeira duocypha (Chamberlin),

new combination

Figures 360-363; Map 6

Araneus duocyphus Chamberlin, 1916: 256, pi. 18, figs. 8-10, 9. Female holotype from Huadquina, 5,000 ft [1,500 m], Depto. Cuzco, Peru, in MCZ,

examined. Bonnet, 1955: 469.

Aranea duocypha: — Roewer, 1942: 841.

Description. Female holotype. Cara-

pace orange. Chelicerae, labium, endites

orange. Sternum orange. Legs orange with

faint longitudinal darker lines. Dorsum of

abdomen orange-white, anterior to a line

between tubercles are dark stipples (Fig.

363); venter light, without marks. Eyes

small, subequal. Anterior median eyes 1.8

diameters apart, 1.8 diameters from lat-

erals. Posterior median eyes 1.7 diameters

apart, 2.1 diameters from laterals. Ocular

quadrangle square, posterior median eyes

on swellings (Fig. 363). Height of clypeus

equal to 1 diameter of anterior median

eyes. Abdomen with pointed tubercles (Fig.

363). Total length 4.3 mm. Carapace 2.0

mm long, 1.7 wide, 0.9 wide behind lateral

eyes. First femur 2.5 mm, patella and tibia

2.8, metatarsus 1.5, tarsus 0.6. Second pa-

tella and tibia 2.7 mm, third 1.4, fourth

1.9.

Diagnosis. The large flat scape of the

epigynum (Figs. 360-362) separates this species from all other *Ocrepeira*. The epigynum resembles that of *Alpaida banos* Levi from Ecuador.

Ocrepeira jacara new species

Figures 364-366; Map 6

Holotype. Male holotype from Fazenda Jaearanda, Itamaraju, Bahia State, Brazil, 9 Dec. 1977 (J. S. Santos), in MCN no. 11122. The specific name is an arbitrary combination of letters.

Description. Male holotype. Carapace, chelicerae, labium, endites, sternum, legs orange. Abdomen, white dorsally with anterior black (Fig. 366), venter gray. Posterior median eyes 0.5 diameter of anterior medians, laterals 0.4 diameter. Anterior median eyes 0.6 diameter apart. Posterior median eyes their diameter apart and on swelling. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.6 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Abdomen shield-shaped (Fig. 366). Total length 3.8 mm. Carapace 2.4 mm long, 1.8 wide, 0.9 wide behind lateral eyes.

First femur 2.7 mm, patella and tibia 2.9,
metatarsus 1.9, tarsus 0.6. Second patella

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and tibia 2.5 mm, third 1.5, fourth 2.0.

Abdomen 2.1 mm long.

Note. The male is in poor condition, the
palpi are transparent as if the specimen
had once been dry.

Variation. Total length of males 3.8 to
4.4. Figures were made from the holotype,
and soft parts may be slightly deformed
because of its poor condition.

Diagnosis. As is the case for *O. yaelae*
(Fig. 359), the radix of the palpus has a
large sclerotized lobe (Fig. 364). The shape
of the median apophysis and the presence
of a tooth on its base (Figs. 364, 365) dis-
tinguish the species from *O. yaelae* (Fig.
359).

Specimen Examined. BRAZIL Sao Paulo: Estrada Santa Amaro, Engo. Marcilac, km 48, 15 Jan. 1961, 6 (F. Werner, MZSP 7964).

Ocrepeira comaina new species

Figures 367, 368; Map 6

Holotype. Male holotype and male paratype from Alto Rio Comaina, 04°27'S, 78°13'W, Puesto de Vigilancia 22, "Falso Paquisha," 850-1,150 m, Depto. Amazonas, Peru, 21 Oct.-3 Nov. 1987 (D. Silva D), in MUSM. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Cephalic region with dusky marks on light orange; sides of carapace with dusky marks. Sternum light orange, legs light orange with indistinct darker rings. Abdomen white dorsally, sides black (Fig. 368); venter light dusky. Posterior median eyes 0.7 diameter of anterior medians, anterior laterals 0.5 diameter, posterior laterals 0.5. Anterior median eyes 0.7 diameter apart, 0.3 diameter from laterals. Posterior median eyes 0.8 diameter apart, 1.6 diameters from laterals. Posterior median eyes not on swell-

ing, facing dorsally. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 1 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Abdomen oval without humps (Fig. 368). Total length 4.2 mm. Carapace 2.2 mm long, 1.9 wide, 0.8 wide behind

lateral eyes. First femur 2.2 mm, patella and tibia 2.7, metatarsus 1.7, tarsus 0.7. Second patella and tibia 2.4 mm, third 1.4, fourth 2.0.

Diagnosis. The terminal apophysis, unlike that of *O. albopunctata* (Fig. 377) is a small, simple thorn (Fig. 367). The base of the median apophysis (Fig. 367) lacks the sculpturing present in *O. herrera* (Fig. 391) and *O. covillei* (Fig. 402).

Ocrepeira heredia new species

Figures 369-371 ; Map 6

Holotype. Male holotype from 1 km N of Montana Azul, 1,500 m, cloud forest, Heredia Prov., Costa Rica, 7-8 May 1987 (D. Ubick), in CAS. The specific name is a noun in apposition after the type locality.

Description. Male holotype. Carapace yellowish, cephalic region and sides of thoracic region darker. Chelicerae yellowish, proximally dusky. Labium, endites, sternum yellowish. Legs yellowish with indistinct darker rings. Anterior of dorsum of abdomen black, divided by a white cardiac mark; posterior white with paired dark spots having light rings (Fig. 371); venter dusky with a pair of white patches. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes 0.5 diameter apart. Posterior median eyes 0.8 diameter apart. Ocular quadrangle narrower behind than in front. Posterior median eyes on slight swelling. Height of clypeus equal to 0.3 diameter of anterior median eyes. Third, fourth coxae each with one macroseta. Fourth trochanter with one macroseta on left side only. Abdomen without distinct humps (Fig. 371). Total length 4.8 mm. Carapace 2.5 mm long, 2.1 wide, 1.0 wide behind lateral eyes. First femur 3.2 mm, patella and tibia 3.7, metatarsus 2.5, tarsus 1.0. Second patella and tibia 3.0 mm, third 1.8, fourth 2.7.

Diagnosis. *Ocrepeira heredia* male differs from the male *O. comaina* (Fig. 367), *O. herrera* (Fig. 391), and *O. covillei* (Fig. 402), which also lack distinct humps on the abdomen, by the shape of the median

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apophysis, whose prong has two tips with a notch in between (Figs. 369, 370).

Ocrepeira albopunctata (Taczanowski),
new combination

Figures 372-379; Map 6

Tricantha albopunctata Taczanowski, 1879: 123, pi. 2, fig. 36, S. Male holotype and 2 imm. paratypes from Amable Maria, Depto. Junin, Peru, in PAN, examined.

Araneus albopunctatus: — Simon, 1895: 817. Bonnet, 1955: 426.

Aranea albopunctata: — Roewver, 1942: 837.

Singa essequibensis: — Mello-Leitao, 1948: 17. Probably erroneous determination.

Araneus trigonellus di Caporiaceo, 1954: 107, fig. 26, 2. Female holotype from Charvein, French Guiana, in MZUF, examined. Brignoli, 1983: 263. NEW SYNONYMY.

Synonymy. *Tricantha* Simon, the original genus of *albopunctata* is a theridiid with the type species *T. tricornis* Simon, 1864, and a subjective synonym of *Phorocidia* (Levi and Levi, 1962). A specimen in the British Museum, collected by Hingston, labeled *Singa essequibensis* (Hingston) by Mello-Leitao, is *O. albopunctata*. But Hingston's (1932) description of *Epeira essequibensis* from Esse-qui-bo Biver, Guyana, with the type lost, is unrecognizable: "greyish-brown with distinct black spot in center of dorsum and two sinuous brown lines that start at the shoulders and converge toward the apex which they almost reach, ventral surface greyish-brown with a short median white longitudinal band. Total length 7 mm." The light median area of the venter of the abdomen suggests that it may have been

a Eustala. The *Araneus trigonellus* holotype is a female in poor condition and has a relatively narrow cephalic region (examined in 1973). One opening of its epigynum is covered by a scale from the male palpus.

Description. Female from Pasco, Peru.

Carapace orange. Chelicerae, labium, endites orange. Sternum orange. Coxae, legs orange. Dorsum of abdomen with anterior black, posterior white (Fig. 376); sides of venter black, sharply bordered toward

dorsum, white but ventrally grading into gray and black. Posterior median eyes same diameter as anterior medians, anterior laterals 0.9 diameter, posterior laterals 0.8.

Anterior median eyes 1.1 diameters apart.

Posterior median eyes 1.1 diameters apart.

Posterior median eyes on very slight swelling facing anterolateral[^] (Fig. 376). Ocular quadrangle slightly longer than wide.

Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen shield-shaped (Fig. 376). Total length 7.5 mm.

Carapace 3.9 mm long, 3.0 wide, 1.8 wide behind posterior median eyes. First femur

3.7 mm, patella and tibia 4.5, metatarsus 3.1, tarsus 1.3. Second patella and tibia 4.4 mm, third 2.4, fourth 3.4.

Male holotype of *T. albopunctata*. Coloration as in female. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.6 diameter. Anterior median eyes their diameter apart, slightly more than 2 diameters from laterals. Posterior median eyes 1.2 diameters apart, 3 diameters from laterals. Posterior median eyes on slight swelling facing sideways. Third coxa with small macroseta, fourth with strong macroseta. Total length 4.2 mm. Carapace 2.6 mm long, 1.9 wide. First femur 2.7 mm, patella and tibia 3.0, metatarsus 1.8, tarsus 0.9. Second patella and tibia 2.3 mm, third 1.4, fourth 2.0.

Note. Males and females were collected in the same area in Mato Grosso, Brazil. Virgin males have the large scale in the palpus attached to the base of the embolus (Fig. 379), which is found in the epigynum of mated females (Fig. 373).

Variation. Taczanowski (1879, pi. 2, fig. 36) illustrates the abdomen; it is handcol-

ored green. The radix of the male palpus has a large projection that supports the scale at the base of the embolus (Fig. 379). The scale is absent in mated males (Fig. 377). Some males lack the macroseta on coxae and trochanters entirely. Others have them on the fourth trochanter and coxa, the one on the coxa being on a tubercle. The conductor is much smaller and the paramedian apophysis wider in some in-

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dividuals than in the specimen illustrated (Fig. 377) which, except for the scale, is similar to the holotype. Total length of females 7.0 to 10.0 mm, of males 3.0 to 4.7. The holotype of *T. albopunctata* is a virgin male. Illustrations (Figs. 372-374, 376) were made from specimens from Depto. Pasco, Peru; Figure 375 was made from a female from Mato Grosso State, Brazil, Figure 377 from Mato Grosso, Figure 378 from Depto. Madre de Dios, Peru, and Figure 379 from a male from Ama-

zonas State, Brazil.

Diagnosis. The female is separated from *O. viejo* (Fig. 380) by the anterior attachment of the scape on the base of the epigynum (Figs. 372, 375). The male differs from *O. viejo* (Figs. 385, 386) by the shape of the terminal apophysis and the distal tip of the median apophysis, which is wide and has two points (Figs. 377, 378).

Natural History. Two males from Mato Grosso, Brazil, were collected, one in a gallery forest, the other in campo-grassland. The female from Juanjui, Peru, was collected at night.

Specimens Examined. GUYANA Moraballi Riv., Essequibo Riv., 15 mi. above Bartica, 9 (R. W. G. Hingston, BMNH); "[?] Brazil, Kartabo" (Kartabu Point, Mazaruni-Potaro Prov.), 06°23'N, 58°41'W, Apr. 1924, 9 (W. Beebe, AMNH). PERU San Martin: Juanjui, 350 m, 16-24 Aug. 1978, 9 (D. Silva D., MUSM). Hudnuco: Monzon Valley, Tingo Maria, 20 Nov. 1954, 9 (E. I. Schlinger, E. S. Ross, CAS). Pasco: Quebrada Chispa, NW Iscozacín,

345 m, Huancabamba, 10°10'S, 75°15'W,
29 Oct. 1986, 29 (D. Silva D., MUSM).
Cuzco: Paltaybamba [Paltaypampa], 2
imm. paratypes (K. Jelski, J. Sztolcman,
PAN). Madre de Dios: Iberia, 30 Apr. 1947,
<3 (J. C. Pallister, AMNH). BRAZIL Ama-
zonas: Manaus, Reserva Ducke, Aug. 1971,
\$ (M. E. Galiano, MEG). Rondonia: Ma-
deira-Mamore, railway camp, 1911, 9 (W.
M. Mann, MCZ); Fazenda Rancho Gran-
de, NE Caculandia, Dec. 1990, <5 (G. B.
Edwards, FSCA). Mato Grosso: 260 km N
Xavantina, 12°39'S, 51°46'W, 400 m, Feb.-
Apr. 1969, 26 (Xavant.-Cachimbo Exped.,
MCZ); Barra dos Bugres, Nov. 1938, 9, 6
(A. Cerrutti, MNRJ).

Ocrepeira viejo new species

Figures 380-386; Map 6

Holotype. Female holotype and male paratype from
La Selva, 4 km SE of Puerto Viejo, Heredia Prov.,
Costa Rica, from wasp trap nest, 20 Sept. 1981 (R.
E. Coville, AR07), in MCZ. The specific name is
a noun in apposition after the type locality.

Description. Female holotype. Cara-
pace, chelicerae, labium, endites, sternum,

coxae, legs orange. Dorsum of abdomen white framed by black (Fig. 384); black sides fading ventrally into colorless venter. Posterior median eyes same diameter as anterior medians, anterior laterals 0.7 diameter, posterior 0.8. Anterior median eyes 1.2 diameters apart. Posterior median eyes 1.3 diameters apart. Ocular quadrangle square. Height of clypeus equal to 1 diameter of anterior median eyes. Abdomen shield-shaped (Fig. 384). Total length 5.0

Figures 372-379. *Ocrepeira albopunctata* (Taczanowski). 372-376, female. 372-375, epigynum. 372, 375, ventral. 373, posterior. 374, lateral. 376, dorsal. 377-379, male. 377, 378, left male palpus. 379, embolus, terminal apophysis (A), conductor (C), radix (R), paramedian apophysis (PM), and scale to be transferred to epigynum (SC).

Figures 380-386. *O. viejo* n. sp. 380-383, female. 380-382, epigynum. 380, ventral. 381, 383, posterior. 382, lateral. 383, with scale from male palpus. 384, dorsal. 385, 386, male palpus.

Figures 387-391. *O. herrera* n. sp. 387-390, female. 387-389, epigynum. 387, ventral. 388, posterior. 389, lateral. 390, dorsal. 391, male palpus.

Figures 392-402. *O. covillei* n. sp. 392-401, female. 392-398, epigynum. 392, 395, 397, ventral. 393, 396, 398, posterior. 399, dorsal. 400, abdomen, dorsal. 401, abdomen, ventral. 402, male palpus.

Scale lines. 1.0 mm, genitalia 0.1 mm.

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mm. Carapace 2.7 mm long, 2.1 wide, 1.4 wide behind lateral eyes. First femur 2.9 mm, patella and tibia 3.4, metatarsus 2.2, tarsus 0.9. Second patella and tibia 3.2 mm, third 1.9, fourth 2.7. Abdomen 3.8 mm long.

Male paratype from Costa Rica. Color as in female. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.7 diameter. Anterior median eyes their diameter apart. Posterior median eyes 1.1 diameters apart. Ocular quadrangle wider in front than behind. Height of clypeus

equal to 1 diameter of anterior median eyes. Fourth coxa with one macroseta. Fourth trochanter with one macroseta on right only. Abdomen as in female. Total length 3.9 mm. Carapace 2.1 mm long, 1.4 wide, 0.8 wide behind lateral eyes. First femur 2.2 mm, patella and tibia 2.5, metatarsus 1.5, tarsus 0.7. Second patella and tibia 2.0 mm, third 0.5, fourth 1.5.

Note. Males and females were collected together. Figures 380-382, 384 were made from the holotype, Figures 385, 386 from the male collected with the holotype, Figure 383 was made from a female from near Iquitos, Peru.

Variation. Total length of females 5.0 to 7.7 mm, of males 3.2 to 3.9. Females from Panama and some others have in posterior view of the epigynum a slight transverse lip dorsal to the scape and ventral to the dark areas, and a depression between this lip and the scape (Fig. 383). A male from Panama has no macroseta on the coxae and one small macroseta on each fourth trochanter.

Diagnosis. The species has a relatively

narrow cephalic area, but the posterior median eyes are on a slight swelling. *Ocrepeira viejo* differs from *O. albopunctata* (Figs. 372, 374) by having its scape attached to the posterior of the base of the epigynum (Figs. 380, 382). The male differs from *O. albopunctata* (Figs. 377, 378) in the different shape of the terminal apophysis and the narrow prong of the median apophysis which also has a flat conical offset at its base (Figs. 385, 386).

Natural History. A female from Costa Rica came from foliage in a wet tropical forest, another from Panama from a canopy.

Specimens Examined. COSTA RICA

Limon: 5.5 km E Guapiles, 200 m, 9 May 1987, 9 (D. Ubick, DU). PANAMA Colon: Fort Davis, Aug. 1936, 6 (A. M. Chickering, MCZ). Panama: Forest Reserve, Aug. 1936, 9 (A. M. Chickering, MCZ); Rarro Colorado Island, Lago Gatun, July 1936, 9 (A. M. Chickering, AMNH); Pipeline Road, 12 July 1976, 9 (G. Montgomery, Y. Lubin, JAK). VENEZUELA Carabobo: San Esteban, 26 Jan. 1940, 9 (P. Andruze, AMNH). Sucre:

Caripito, 15 Aug. 1968, 9 (J. M. Osorio, FSCA). COLOMBIA Santander: Rio Opon, Jan. 1947, 9 (L. Richter, AMNH). Narino: Barbacoas, 20 Mar. 1974, 6 (W. Eberhard, MCZ); La Planada, 7 km S Chocones, 1,800 m, July 1986, 6 (W. Eberhard, MCZ). PERU Loreto: Explorama Inn, 40 km NE Iquitos, 19-21 July 1989 (H. V. Weems, FSCA). Junin: Utcuvacu, 8-26 Feb. 1948, 9 (F. Woytkowski, AMNH).

Ocrepeira herrera new species

Figures 387-391 ; Map 6

Holotype. Female holotype from Genaro Herrera, 04°55'S, 73°45'W, Rio Ucayali, 100 m, Depto. Loreto, Peru, 24 Aug. 1988, (D. Silva D.), in MUSM.

The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange, eye region darkest. Chelicerae, labium, endites orange. Sternum orange. Coxae, legs orange. Dorsum of abdomen white, framed by black and containing a pair of black spots (Fig. 390); venter dusky. Posterior median eyes 0.8 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes 0.7 di-

ameter apart, 0.8 diameter from laterals.

Posterior median eyes 0.8 diameter apart, 2 diameters from laterals. Posterior median eyes facing up, not on swelling. Ocular quadrangle wider than long, narrower behind than in front. Height of clypeus equal to 0.5 diameter of anterior median eyes. Abdomen oval (Fig. 390). Total length

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5.5 mm. Carapace 2.7 mm long, 2.2 wide, 1.0 wide behind lateral eyes. First femur 2.7 mm, patella and tibia 3.5, metatarsus 2.3, tarsus 1.0. Second patella and tibia 3.1 mm, third 2.0, fourth 2.7.

Male paratype. Coloration as in female but carapace orange with four black streaks radiating anteriorly from thoracic groove, cephalic region and sides of head dusky, sides of thoracic region with dusky patches. Legs with dusky rings on distal articles. Dorsum of abdomen greenish white with black anterior and sides, and two tiny black

spots in middle. Posterior median eyes 0.7 diameter of anterior medians, laterals 0.5 diameter. Anterior median eyes 0.8 diameter apart, 0.5 diameter from laterals. Posterior median eyes their diameter apart, 2 diameters from laterals. Ocular quadrangle narrower behind than in front. Height of clypeus equal to 0.3 diameter of anterior median eyes. Third and fourth coxae each with one macroseta. Fourth trochanter with one macroseta. Total length 4.4 mm. Carapace 2.3 mm long, 1.9 wide, 0.8 wide behind lateral eyes. First femur 2.2 mm, patella and tibia 2.7, metatarsus 1.8, tarsus 0.7. Second patella and tibia 2.5 mm, third 1.3, fourth 2.0.

Note. Male and female were matched because both have posterior median eyes facing up and both may have a similar pair of black spots on the oval abdomen.

Variation. Total length of females 5.2 to 6.4 mm. Several females lack the black spots on the abdomen. Illustrations were prepared from the female holotype and a male from Depto. Pasco, Peru.

Diagnosis. The female differs from that of most other species by having the posterior median eyes facing dorsally and an oval abdomen (Fig. 390). It differs from all by the triangular, rugose posterior median plate of the epigynum (Fig. 388). The male has only a lobe as terminal apophysis and, unlike *O. comaina* (Fig. 367), a short median apophysis (Fig. 391).

Specimens Examined. ECUADOR

Napo: Pompeva, Rio Napo, May 1965, 9

(L. Pefia, MCZ). PERU Loreto: Iquitos,

May 1920, 9 (H. S. Parrish, MCZ). Hudn-

uco: Huallaga Valley, Feb. -Apr. 1954, 9

(F. Wovtkowski, CAS). Pasco: Rio Chispa,

345 m, N W of Iscozacín, 30-31 Oct. 1986,

6 (D. Silva D., MUSM). Madre de Dios:

Zona Reservada Tambopata, 14 May 1988,

9, 15 May 1988, 9 (D. Silva D., MUSM);

Zona Reservada Pakitza, 11°58'S, 71°18'W,

6 Oct. 1989, 9 (J. Coddington, D. Silva D.,

MUSM); Reservada Cuzco Amazonica, 15

km NE Puerto Maldonado, 12°33'S,

69°03'W, 22 June 1989, 9 (D. Silva D.,

MUSM).

Ocrepeira covillei new species

Figures 392-402; Map 6

Holotype. Female holotype, two male paratypes from La Selva, 4 km SE Puerto Viejo, Heredia Prov., Costa Rica, 24 June 1980, from wasp nest (R. Coville, AR 01), in MCZ. The species is named after the collector.

Description. Female holotype. Carapace orange, cephalic region darker orange. Chelicerae, labium, endites dark orange. Sternum, coxae orange; legs dark orange. Dorsum of abdomen white, black anterolateral[^] (Fig. 399); venter dusky with a pair of white spots side by side (Fig. 401). Posterior median eyes same diameter as anterior medians, laterals 0.8 diameter. Anterior median eyes 0.9 diameter apart. Posterior median eyes 0.8 diameter apart. Laterals 0.4 diameter apart. Posterior median eyes without swelling, facing dorsally (Fig. 399). Ocular quadrangle square, slightly narrower behind than in front. Abdomen subspherical without humps (Fig. 399). Total length 8.0 mm. Carapace 3.2 mm long, 2.8 wide, 1.4 wide behind posterior median eyes. First femur 3.4 mm, patella and tibia 4.2, metatarsus 2.8, tarsus

1.0. Second patella and tibia 3.9 mm, third
2.4, fourth 3.5.

Male paratype collected with holotype.

Color as in female but carapace orange
with sides of thoracic region having darker
patches. Posterior median eyes 0.7 diam-
eter of anterior medians, laterals 0.6 di-
ameter. Anterior median eyes 0.7 diame-
ter apart. Posterior median eyes 0.7

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diameter apart. Ocular quadrangle almost square, slightly narrower behind than in front. Height of elypeus equal to 0.8 diameter of anterior median eyes. Sternum with four macrosetae in center. Third and fourth coxae each with one macroseta. Fourth trochanter with one short macroseta. Abdomen oval without humps. Total length 6.4 mm. Carapace 3.1 mm long, 2.5 mm wide behind lateral eyes. First as femur 2.7 mm, patella and tibia 3.4, meta-tarsus 2.2, tarsus 0.9. Second patella and

Specimens Examined. TRINIDAD St. George: Simla, Arima Valley, 244 m, 27 June-3 July 1978, 2 (B. Camilla, H. V. Weems, FSCA). GUYANA Kurupukari Riv., Essequibo Riv., 1 Oct. 1937, 9 (Hassler, AMNH). SURINAM Paramaribo, Aug. 1967, 2 (V. Doesburg, AMNH). COLOMBIA Boyaca: Rio Upia, 850-950 m, Nov., 2.5 Dec. 1945, 2 (AMNH). Meta: Puerto Llerena, 1.1 wide behind lateral eyes. First as femur 2.7 mm, patella and tibia 3.4, meta-tarsus 2.2, tarsus 0.9. Second patella and AMNH). PERU Loreto: Chanchamayo

tibia 3.0 mm, third 2.0, fourth 2.8. Valley, 22 (W. Weyrauch, AMNH); Par-

Variation. There is considerable varia- queNac. PacayaSamiria,04°39'S,74°2rW,

tion and I first considered the specimens 12 Aug. 1989, 2 (S. Silva D., MUSM); Es-

listed here to belong to several species, tiron, Rio Ampiyacu, 13 Nov. -9 Dec, 2 (B.

Specimens from Monterrico, Peru, have Malkin, AMNH); Iquitos2 (MCZ); Parinari

the ocular quadrangle narrower behind Canyon, Rio Samiria, Nov. 1912, 2

than in the holotype. The length and the (Bluntschli, AMNH). Hudnuco: Tingo

width of the scape of the epigynum are Maria, Apr. 1940, 2 (W. Weyrauch,

variable (Figs. 392-398). One male lacks AMNH); 8 km W Las Palmas, 5 Oct. 1954,

a macroseta on the third coxa on one side. 2 (E. S. Ross, E. I. Schlinger, CAS). Pasco:

Some males lack the macrosetae on the Huancabamba, Quebrada Castillo, NW Is-

sternum. Total length of females 6.2 to 9.0 cozacin, 345 m, 10°10'S, 75°15'W, 82 (D.

mm, of males 4.4 to 6.4. The illustrations Silva D., MUSM). Junin: Amable Maria,

(Figs. 392-394, 399, 401) were made from 2 (K. Jelski, PAN). Ayacucho: Monterrico,

the holotype, Figures 395, 396 from a fe- E Huanta, on Rio San Miguel, 12°28'S,

male from the Depto. Junin, Peru, Figures 73°54'W, (K. Jelski, J. Sztolcman, PAN).

397, 398 from Depto. Loreto, Peru, Figure Madre de Dios: Reserva Cuzco Amazon-

400 was made from a female from Ama- ico, 12°33'S, 69°23'W, 15-17 June, 1989,

zonas State, Brazil, and Figure 402 from 82 (D. Silva D., MUSM); Rio Tambopata

a male collected with the holotype. Reserve, 30 km SW Puerto Maldonado,

Diagnosis. This species, unlike most, has Nov. 1982, 2 (E. S. Ross, CAS), 18 June

a spherical abdomen, and the posterior me- 1987, 6, 17-25 July 1987, 32, 11-29 May

dian eyes face dorsally (Fig. 399). Females 1988, 42, 3, 2 imm. (D. Silva D., MUSM);

differ from other species by the shape of Zona Reservada de Mann, Puesto de Vi-

the scape and the narrow posterior median gilancia Pakitza, 11°58'S, 71°18'W, 26 Sept.

plate of the epigynum (Figs. 392-398) and 1987, 22 (J. Coddington, D. Silva D.,

from males by the shape of the terminal MUSM), 9 Oct. 1987, 23 (D. Silva D, J.

apophysis and the pointed tip of the me- Coddington, USNM), 27 Nov. 1987, 2 (J.

dian apophysis prong (Fig. 402). Bohorquez, MUSM). BRAZIL Roraima:

Natural History. Most specimens were Estacao Ecologica de Maraca, Ilha de Mar-
collected from wasp nests or wasp traps aca, Rio Uraricoera, 29 Mar. 1987, 3 (A.
and others came from a rain forest. A. Lise, INPA). Amazonas: Rio Autas,

Paratypes. COSTA RICA Heredia: La Santa Amelia, 9 Sept. 1914, 2 (A. Roman,

Selva nr. Puerto Viejo, Feb. 1981, 3, Feb. NRMS); Manaus, Igapo Taruma Mirim, 3

1986, <5, June 1982, 2 (W.Eberhard, TL32- Oct. 1987, 2, 11 Mar. 1988, 2 (H. Hofer,

1, MCZ), 20 June 1980, 2,3 (R. Coville AR INPA); Manaus, Reserva Ducke, 11 Apr.

05, MCZ); Feb. 1960, 2 (W. Eber hard, 3235, 1973,2 (L. P. Albuquerque, MCN, 19290);

MCZ). Manaus, Reserva Campina, 7 Dec. 1973,

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Figures 403-406. Ocrepeira sorota n. sp., female. 403-405, epigynum. 403, ventral. 404, posterior. 405, lateral. 406, dorsal.

Scale lines. 1.0 mm, genitalia 0.1 mm.

9 (L. P. Albuquerque, MCN); Fazenda Es-

teio, Manaus, 11 Dec. 1985, 6 (B. C. Klein, MCN 20052); Tabatinga, Aug. 1984, \$ (A. Cerrutti, MNRJ). Mato Grosso: Utiariti, Nov. 1966, 6 (F. Lenko, MZSP 5616). Bahia: Fazenda N. S. Das Neves, Itamaraju, 9 Oct. 1987, 6 (J. S. Santos, MCN 11011); Fazenda Almada, Urucuca, 27 Nov. 1977, \$ (J. S. Santos, MCN 20052). BOLIVIA La Paz: Miguillas, 1,800 m, Irupana to Circuata, 2-3 Dec. 1984, 6 (L. Pena, AMNH).

Ocrepeira sorota new species

Figures 403-406; Map 6

iameter of anterior median eyes. Abdomen as in Figure 406. Total length 5.5 mm.

Carapace 2.7 mm long, 2.1 wide, 1.1 wide behind lateral eyes. First femur 3.1 mm, patella and tibia 3.4, metatarsus 2.1, tarsus 0.7. Second patella and tibia 3.2 mm, third 1.7, fourth 2.4.

Diagnosis. *Ocrepeira sorota* differs from all others by its black coloration (Fig. 406) and the unusual epigynum, having a median lobe with a lip and the posterior median plate raised above the lateral plates (Fig. 404).

Holotype. Female holotype from Sorota, 2,800 m, Depto. La Paz, Bolivia, 11-14 Nov. 1984 (L. E. Pefia), in AMNH. The specific name is a noun in apposition after the type locality.

Description. Female holotype. Carapace orange-brown, cephalic region gray to black. Chelicerae, labium, endites orange. Sternum orange. Coxae light orange; legs with femora orange, distally black, distal articles black; third femora with a black ring. Dorsum of abdomen black with irregular white spots and posteriorly paired white spots (Fig. 406); venter whitish gray, sides black. Eyes subequal. Anterior median eyes 1.3 diameters apart. Posterior median eyes 1.2 diameters apart. Ocular quadrangle slightly narrower behind than in front. Height of clypeus equal to 1 di-

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