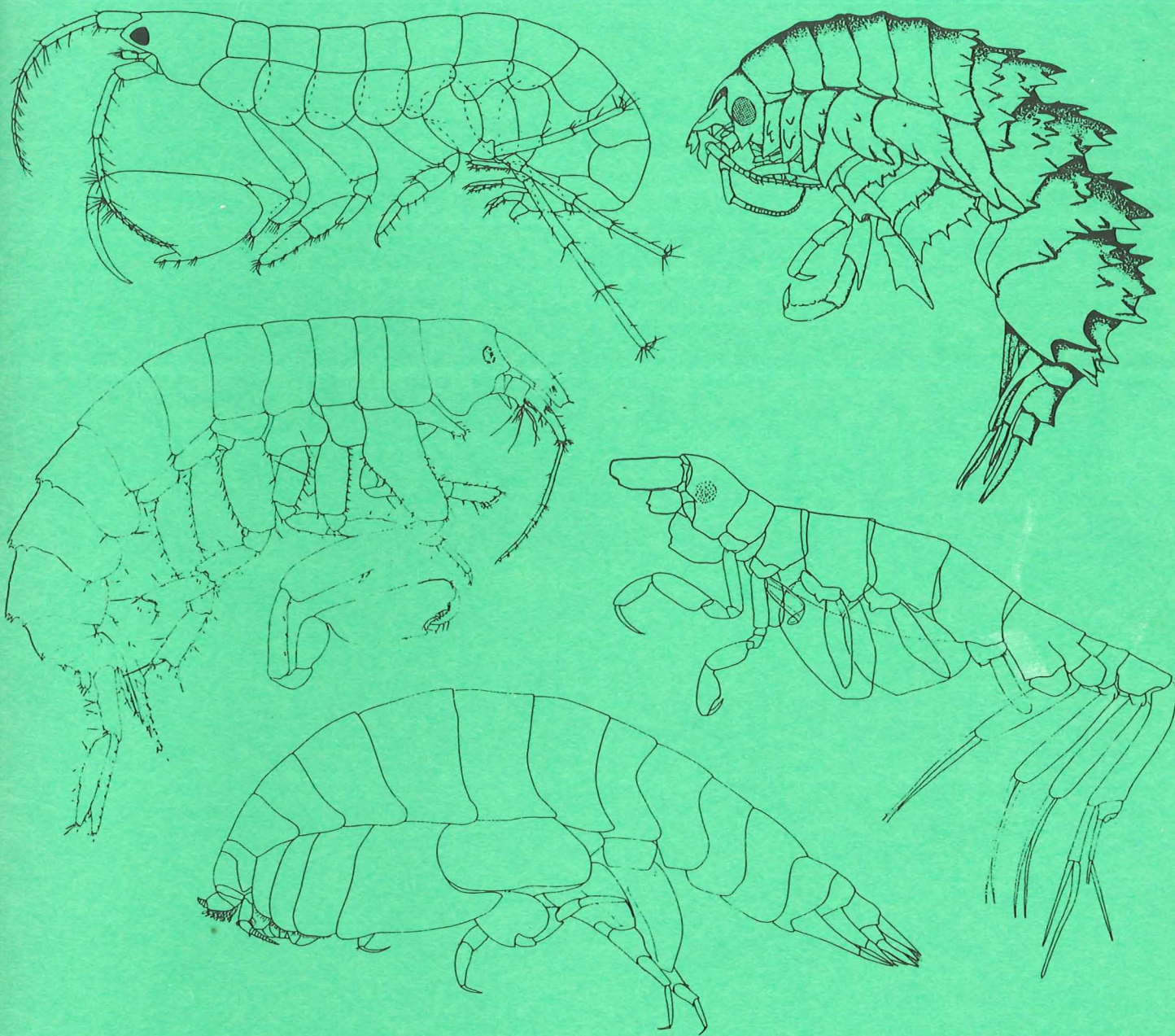


AMPHIPOD NEWSLETTER

19



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Jim Lowry (Sydney)
Wim Vader (Tromsø)

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USA west	vacant - volunteers most welcome
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Australia, New Zealand	Jim Lowry (Sydney)

Hiroshi Morino and Jason Weeks were unable to continue as regional editors - both have done a very good job.

Wim has been in Sydney for a year (1993), but will be back in Tromsø from January 1994.

ABOUT THE COVER

This issue is dedicated to the memory of Jerry Barnard. The cover shows examples of genera and species named in his honour by appreciative colleagues. Clockwise from the bottom: *Eucallisoma barnardi* Lowry & Stoddart, *Jerbarnia mecochira* Croker, *Pseudomegamphopus barnardi* Myers, *Echiniphimedia barnardi* Coleman & Andres, *Dulichlopsis barnardi* Laubitz.

SUBSCRIPTIONS

Enough subscriptions have come in to print AN 19, but the financial situation is still unsatisfactory and Wim has not got his money back. We therefore urge the regional editors to once more collect subscriptions; especially disappointing is the low payment rate of US-subscribers.

WHAT YOU THINK OF THE AMPHIPOD NEWSLETTER

More than 100 subscribers filled out and sent in the questionnaire in AN 17, and most seem to be generally content with the Amphipod Newsletter.

Many of you want more "News from Colleagues". The editors concur, but this is one type of copy that they can't generate themselves! So please write us about your plans, problems, triumphs and frustrations.

Other suggestions were to add authors' addresses to the bibliography, something Wim does not feel it possible to provide as long as he compiles this bibliography in the old-fashioned way. Also, of course, very many addresses are in the list in this issue.

The idea to supplement the address list with fax and E-mail numbers is a good one and maybe the regional editors could coordinate this at the same time as collecting the subscriptions.

In AN 20, we'll have a debate on how "best to describe amphipods" (descriptions and/or illustrations) after an initiative of Oliver Coleman. Diana Laubitz has proposed to ask some young amphipod workers from different countries and disciplines to tell about their dreams and problems, and that seems to be a very attractive idea. Once more, the regional editors are asked to help find likely prospects.

NEXT AMPHIPOD CONFERENCE

During the Jerry Barnard Memorial in Washington in March 1992 various suggestions were bandied about as to where and when the next amphipod meeting is to be held. Many exotic and amphipodologically tempting venues, such as Chile and Yucatan, were proposed, but nothing seems to have come of them.

On the other hand, there is a concrete offer by Prof. Krzysztof Jazdzewski to organize the next amphipod meeting in autumn 1994 in Lodz, Poland. Some of you will have fond memories of earlier visits to Poland, either in 1980 when the amphipod meeting was first planned, or from 1981 when it actually took place, and Krzysztof assured us that it now will be considerably easier to organize a meeting than in those troubled times.

He needs, however, to decide the issue at the latest ultimo October this year, as such meetings need a lot of preparation and fund applications. We urge therefore all colleagues who are interested in participating in the next amphipod meeting, to write to Krzysztof directly, at the latest by 15 October 1993, and let him know what they think of his suggestion of holding the meeting once more in Poland, and whether they have plans to participate.

His address is:

Prof. Krzysztof Jazdzewski
Dept. of Invertebrate Zoology and Hydrobiology
University of Lodz
12-16 Banacha Str.
90-237 Lodz, Poland

A BRONZE AMPHIPOD

William H. Turner is an American sculpter specializing in animal sculptures. Wim and Jim have seen examples of his work and it is of the highest quality. He is willing to sculpt and cast in bronze an amphipod, maybe *Eurythenes gryllus*. The sculpture would be about 10 cm long. The amphipod would appear to be swimming past a trap or some benthic object. Turner would cast 100 copies. Each one would cost about US\$300 provided that at least 30 people order. Expressions of interest to Jim Lowry by 31 October 1993.

J.L. BARNARD & G.S. KARAMAN 1991. 'THE FAMILIES AND GENERA OF MARINE GAMMARIDEAN AMPHIPODA (EXCEPT MARINE GAMMAROIDS).' RECORDS OF THE AUSTRALIAN MUSEUM SUPPLEMENT 13, 2 Vols, 866 pp.

by

Wim Vader

Review

This monumental monograph is Jerry Barnard's legacy to his colleagues (for with all due respect for Gordon Karaman's important contribution in the early stages, this is very much Jerry's book, in both style and contents). Nothing can of course replace Jerry Barnard the man, and he will be sadly missed as expert, mentor, generous helper and friend for many years to come, but we are very fortunate to have this state-of-the-art overview of the taxonomy and relationships of the gammaridean Amphipoda, as Jerry Barnard saw them. Thanks to the generous assistance of Jim Lowry and his amphipod and publishing team at the Australian Museum, the two - volume monograph has got a very clear design and lay-out, and before his untimely death Jerry had the satisfaction to know that the handbook was in the press.

While the reviewer almost automatically uses the words 'this monumental monograph', the authors themselves with characteristic modesty write in the introduction: 'The present compilation remains at best a stopgap!' (Jerry Barnard was also heard to grumble that 'this book' kept him away from real science for years.) Both viewpoints are right! As the authors themselves were the first to acknowledge, the taxonomy and phylogeny of the gammaridean amphipods, especially at the suprageneric level, are very much in a state of flux. Vast amounts of data are being collected and processed annually, new characters are evaluated, and much more stringent and objective taxonomic methods are being taken into use. Further more, the handbook is for a large part, and necessarily, based upon study of the literature, not the actual type-specimens (what Barnard and Karaman themselves have dubbed 'armchair-revisions'), and in some cases faulty or incomplete observations by earlier authors have therefore found their way into this book. The data on geographic distribution, unchecked by regional workers, suffer especially in this respect. So in a way this handbook, if surely not a stopgap, will probably and hopefully become out-of-date in some respects before long.

But on the other hand the two volumes definitely do constitute a monumental monograph! They represent a tour de force that only a specialist with vast and varied experience and both the wide overview and detailed insight of the world's entire amphipod fauna, such as Jerry Barnard uniquely had, could hope to embark on with any chance of success. Moreover, only someone with his tenacity and altruistic work-ethos could bring the task to fruition.

Compared with Barnard's earlier 1969-handbook, itself deservedly a classic in amphipod taxonomy, this is definitely the deluxe model! Not only have a further 25 years of active amphipod studies and not least the authors' ever growing insights been incorporated, but the present handbook also contains lists of all described species (with references to original and later descriptions) and their geographic distribution. The generic diagnoses have been greatly expanded, and most useful sections have been added on sexual and intrageneric variations, and on differences from related genera. There are many keys to families and genera (unfortunately not all run smoothly because of minor inconsistencies or misprints).

The handbook specifically excludes the marine gammaroids, and for many prominent marine genera such as *Gammarus*, *Melita*, *Maera*, or *Bathyporeia* the reader is referred to the earlier monographs of Barnard & Barnard (1983). This was no doubt unavoidable, but still rather much a pity.

There is, as is the case in most taxonomic monographs, little here about the biology of the amphipods and what there is, e.g. in the introductory chapters, is often clearly deductions from the morphology of limbs and mouthparts rather than the results of actual field or aquarium observations or even in-depth coverage of the relevant literature. Data on symbiotic associations, my own hobby-horse, for example, are presented very unevenly and somewhat haphazardly. These comments are maybe somewhat unfair, as the handbook clearly never aimed at covering biological data at any depth. Instead it was published 'to aid in the identification of gammaridean genera' and 'to present chapters on morphology, evolutionary trends, geographic distribution and prospecti that are the direct outgrowth of our studies'. In these aims the handbook succeeds magnificently.

How incredibly important and almost indispensable a handbook such as this is for the practising taxonomist in large parts of the world, has first been brought home to me by my present stay in Australia. In Norway - the country of G.O. Sars - regional coverage is so good that it almost seems excessive to use 'a handbook of the entire world' in your daily work. But in Australia the situation is still very different: every amphipod species that I find among my hermit-crabs is strange and unknown to me, and the only sensible way to proceed is to use 'the green Barnard & Karaman'. With the help of this book I can identify the right genera (or find that no existing genus fits), and then go on and see which species have been described from the general area, and where I can find description and illustrations of them. There also are large numbers of very clear detailed illustrations to further assist the identification process.

For many amphipod workers the appearance of this handbook therefore signifies the start of a new era, and Jerry Barnard could not have given us a better legacy than this.

Taxonomic changes in Barnard & Karaman 1991

These changes have been incorporated in the indexes in AN 18 and 19. They are listed here by family, without page references. The many changes that had already been published elsewhere are omitted, where noted, but many will have been overlooked.

- Ampeliscidae: *Haploops securiger* (transferred) to *Byblis* (The word transferred will be omitted).
 Amphilochidae: *Gitanogeiton tropica* to *Amphilochus*.
 Ampithoidae: *Plumithoe* n. gen. for *Ampithoe plumicornis* (type) and *A. hirsuta*.
Melanesius reduced to subgeneric rank sub *Examphithoe*.
Ampithoe brasiliensis to *Cymadusa*. *Paradusa pilipes* to *Cymadusa*.
 Bateidae: *Carinobatea* junior synonym of *Batea*.
 ? Condukiidae: *Otagia* n. gen. (incertae sedis) for the insufficiently well known *Platyischnopus neozelanicus*.
 Corophioidea: *Arctolembos* raised to generic status with type *Lembos arcticus*; *Autonoe* Bruzelius revived, type *Gammarus longipes*, 11 further spp.; *Rudilemboides* Barnard revived.
Neomicrodeutopus and *Bigrandierella* junior synonyms of *Grandierella*.
Gammaropsis alaskensis to *Cheirimeдея*, *G. lina* to *Audulla*, *Lemboides crenatipalma* to *Aorchoides*, *Lembos chelatus* to *Varohios*, *L. leptochairus* to *Xenocheira*, *L. longipalpus* to *Columbaora*, *Leptochairus aberrans* to *Goesia*, *Microdeutopus kraemmeri* to *Globosolembos*, *M. tridens* to *Lembos*, *Photis digitata* and *Ph. distinguenda* to *Dodophotis*, *Ph. geniculata* to *Cheiriphotis*.
 Dexaminidae: *Lepechinellopsis inaequicaudata* to *Melita*.
 Eusiridae: *Relictomoera* n. gen. for *Paramoera relictata* (type) and *P. tsushimana*. *Sternomoera* n. gen. for *Paramoera yezoensis* (type), *P. hayamanensis* and *P. japonica*.
Rozinante junior syn. of *Apherusa*; *Harpinioidella* junior syn. of *Harpinioides*;
Pontogeneiella junior syn. of *Prostebbingia*; *Atyloides* and *Dolobrotus* junior syn. of *Schraderia*.
Apherusa translucens to *Whangarusa*, *Halirages bungei* to *Paracalliopiella*, *H. batei*, *H. huxleyanus* and *H. regis* all to *Austroregia*, *Pontogeneia barnardi* to *Abdia*, *Prostebbingia maneroo* to *Manerogeneia*.
 Exoedicerotidae: *Warreyus* junior syn. of *Exoediceroides*.
 Iphimediidae: *Paracanthonotozoma* junior syn. of *Acanthonotozomella*; *Pseudepimeria* and *Subepimeria* junior syn. of *Epimeria*; *Cypsiphimedia* junior syn. of *Iphimedia*; *Maoriphimedia* junior syn. of *Labriphimedia*.
Iphimedia joubini to *Stegopanoploea*, *Iphimediella discoveryi* to *Gnathiphimedia*

- macrops*.
- Leucothoidae: *Leucothoella* (valid subgenus) and *Leucothopsis* junior syn. of *Leucothoe*.
- Liljeborgiidae: *Liljeborgiella* junior syn. of *Liljeborgia*; *Ronconoides* junior syn. of *Listriella*.
Liljeborgia epistomata to *Isippingus*.
- Lysianassidae: *Bonassa* n. gen. for *Lysianassa bonairensis*. *Caeconyx* n. gen. for *Tmetonyx caeculus*.
Concarnes n. gen. for *Socarnes concavus*. *Coximedon* n. gen. for *Cheirimedon latimanus* (type) and *C. pectinipalma*. *Dartenassa* n. gen. for *Lysianassa dartevellei*.
Dissiminassa n. gen. for *Aruga dissimilis*. *Falcanassa* n. gen. for *Lysianassa falcata*.
Gronella n. gen. for *Anonyx groenlandicus*. *Lysianassina* Costa revived for *Lysianax longicornis*.
Macronassa n. gen. for *Aruga macromerus* (type) and *Lysianassa pariter*.
Martensia n. gen. for *Lysianassa martensi*. *Septicarnes* n. gen. for *Socarnes septimus*.
Tetronychia junior syn. of *Hirondellea*.
Ambasiopsis fomes to *Cedrosella*, *Anonyx kurilicus* to *Psammonyx*, *Aruga subantarctica* to *Lysianopsis*, *Hippomedon brevicaudatus* to *Elimedon*, *H. whereo*, possibly also *H. manene* and *H. matikuku*, to *Paracentromedon*, *Nannonyx integricauda* to *Kakanui*,
Fresnillo fimbriatus to *Ocosingo borlus*, *Orchomene abyssalis* to *Uristes*, *O. groenlandicus* to *Gronella*, *O. morbihanensis* to *Socarnes*, *O. reducta* to *Falklandia*, *O. takoradia* to *Adeliella*, *Pachychelium mediterraneum* to *Prachynella*, *P. oculatum* to *Ekelofia*,
Pseudokoroga rima to *Rimakoroga*, *Schisturella galathea* to *Galathella*, *S. parachelata* to *Aristiopsis*,
Socarnes allecto, *S. dissimulantia*, *S. filicornis* and *S. obesus* all to *Socarnopsis*, *S. concavus* to *Concarnes*, *S. illudens* and *S. unidentatus* to *Socarnoides*,
S. septimus to *Septicarnes*, *Tryphosites capadarei* to *Parschisturella carinata*,
Uristes induratus to *Procyphocaris*, *U. lepidus* to *Lepiduristes*, *U. martensi* to *Martensia*,
U. murrayi to *Tryphosella*, and *Valettisopsis anacanthus* to *Valettietta*.
Cornudilla n. gen. for *Westwoodilla cornuta*.
- Oedicerotidae: *Gulbarensia larseni* to *Oediceroides lahillei*, *Oediceroides forensia* to *Lopiceros*, *O. breviostris* and *O. cystifera* to *Paraperioculodes*, *O. pirloti* to *Paroediceros*, *O. sinuata* to *Paroediceroides*,
Oediceropsis morosa and *O. trepadora* to *Oediceroides*, and *O. sinuata* to *Paroediceroides*.
- Paracalliopiidae: *Paracalliope fernandoi* Wignarajah, 1951 is a talitrid.
- Pardaliscidae: *Eperopeus* Mills is consistently misspelled *Epereopsis*.
- Phoxocephalidae: *Ringaringa* n. gen. for *Metaphoxus littoralis*.
Metaphoxus fultoni to *Parametaphoxus*, *M. littoralis* to *Ringaringa*, *Parharpinia fuegiensis* to *Fuegiphoxus*.
- Platyischnopidae: *Platyischnopus neozelanicus* to *Otago*.
- Pleustidae: *Pleustoides* junior syn. of *Pleusymtes*. *Parapleustes barnardi* and *P. honomu* to *Tepidopleustes*.
- Podoceridae: *Styloxenodice* junior syn. of *Parunciola*.
- Stegocephalidae: *Andaniotes simplex* to *Stegosoladidas*, *Stegocephaloides katalia* and *S. vanhoffeni* to *Stegocephalopsis*,
Stegocephalopsis wagini to *Stegocephaloides*, *Stegocephalus latus* to *Stegocephalopsis*.
- Stenothoidae: *Hardametopa* n. gen. for *Metopa nasuta* (type) and *M. carinata*.
Metopoides aurora to *Aurometopa*, *M. aequalis*, *M. compacta*, *M. crassicornis* and *M. parallelocheir* all to *Torometopa*,
Proboloides antarcticus, *P. carinatus*, *P. crenatipalmatus*, *P. dentimanus*, *P. palmatus*, *P. perlatus*, *P. porcellanus* and *P. stephenseni* also all to *Torometopa*.
- Stilipedidae: *Parastyra* junior syn. of *Astyra*.
Bathypanoploea australis to *Alexandrella*.
- Synopiidae: *Pseudotiron brevidactylus* to *Metatiron*.

Errata

Only those that can cause difficulties in identification have been mentioned here. I am very grateful to Anna Murray and Roger Springthorpe of the Australian Museum for bringing the bulk of the errata to my attention.

- p. 64 Couplet 3 should read: - Coxa 1 small or absent, much smaller than coxa 2 (less than half surface area of coxa 2) and/or mostly hidden by following coxa. Some of following coxae longer than wide. (Occasionally gnathopod 1 absent or vestigial).Section E.
- Coxa 1 usually subequal to coxa 2 or never hidden by following coxae (Occasionally coxa 1 partly hidden, but all following coxae wider than long (Gnathopod 1 always fully developed)).

- p. 64 Couplet 7b refers to 11, not 1.
 p. 68 Couplet 38a refers to Fig. 21
 p. 69 Couplet 46b refers to 47, not 31
 p. 70 Couplet 3b reads antenna 1 4, not antenna 14
 p. 74 Couplet 3a Article 4 of antenna 2 strongly expanded.
 p. 113 *Anamixis* Figs. 27, 83, 84, not 85
 p. 149 Couplet 8b refers to 14, not 15
 p. 368 *Allorchestes plumicornis* is G
 p. 395 Geographical distribution of *Iphimedia discreta* is area 781, not 681.
 p. 576 The genus name *Eperopeus* Mills, 1967 is consistently misspelled *Epereopus*
 p. 585 Fig. 105 I = *Pereionotus* (= *Palinnotus*)
 p. 586 Fig. 106 Taxon- lettering missing on plate. Upper row from left: *Heterophlias*, *Pereionotus*,
Iphinotus, *Iphiplateia*, *Quasimodia*, *Heterophlias*, *Iphinotus*, *Heterophlias*. Lower row,
Heterophlias, *Heterophlias*, ?, *Heterophlias*, *Heterophlias*, *Pereionotus*, *Heterophlias*.
 p. 729 *Urothoides mammarta*, not *mammaria*

If other users of the book have noticed further errata, that may lead to confusion, please let me know.

BIBLIOGRAPHY

- AARSET, A.V. & T. AUNAAS, 1990. Influence of environmental salinity on oxygen consumption and ammonia excretion of the Arctic under-ice amphipod *Onisimus glacialis*. ____ *Marine Biology* 107, 9-15.
- AARSET, A.V. & T. AUNAAS, 1990. Metabolic responses of the sympagic amphipods *Gammarus wilkitzkii* and *Onisimus glacialis* to arctic temperature variations. ____ *Marine Biology* 107, 433-438.
- AARSET, A.V. & T. AUNAAS, 1990. Effects of osmotic stress on oxygen consumption and ammonia secretion of the Arctic sympagic amphipod *Gammarus wilkitzkii*. ____ *Marine Ecology - Progress Series* 58, 217-224.
- ABRAMS, P.A., C. HILL & R. ELMGREN, 1990. The functional response of the predatory polychaete, *Harmothoe sarsi*, to the amphipod, *Pontoporeia affinis*. ____ *Oikos* 59, 261-269.
- ADAMS, J., 1989. Natural selection of parental ability to vary resource partitioning among offspring. ____ *Oikos* 56, 135-137.
- AFTON, A.D., R.H. HIER & S.L. PAULUS, 1991. Lesser Scaup diets during migration and winter in the Mississippi flyway. ____ *Canadian Journal of Zoology* 69, 328-333 (Amphipods important in diet in Manitoba in fall).
- AGUILAR BETANCOURT, C. & G. GONZALEZ SANSON, 1990. (Feeding habitats of juveniles of *Bairdiella ronchus* (Cuvier) in an area of the northwestern Cuban platform). ____ *Revista de Investigaciones marinas* 11, 35-40 (In Spanish, not seen. Amph. most important prey).
- AHSANULLAH, M. & A.R. WILLIAMS, 1991. Sublethal effects and bioaccumulation of cadmium, chromium, copper and zinc in the marine amphipod *Allorchestes compressa*. ____ *Marine Biology* 108, 59-65.
- ALEXEEV, R.P., 1991. Amphipods from hydrotechnic structures in the north-west part of the Black Sea. ____ *Hydrobiologia* 223, 79-80.
- ALEKSEEV, V.R., 1990. (Diapause in crustaceans. Ecophysiological aspects). ____ *NAUKA*, Moskva, 144 pp., (In Russian, not seen).
- AL-HABBIB, O.A.M., F. S. HANNA & R.M.K. AL-JAMMAS, 1989. Biochemical acclimation to temperature in the stenothermal gammarid *Rivulogammarus syriacus* (Chevreux). ____ *Biological Science Research* 20, 55-64. (Not seen).
- ALIEV, R.A., 1990. (The ecology and biology of *Gammarus matienus* (Crustacea Amphipoda) in water-bodies of Azerbaijan). ____ *Zoologicheskii Zhurnal* 69, 51-54 (In Russian).
- ALIEV, R.I., 1990. (Seasonal changes in macrozoobenthos in Malyi Kyzylagachskii Zaliv, Azerbaijan SSR, USSR). ____ *Izvestija Akademija Nauk Azerbaijan: SSR, Ser. Biol.* 6 (1989), 61-65 (In Russian, not seen).
- ALIEV, R.I., 1991. Ecology and biology of *Gammarus*

- matienus* (Crustacea, Amphipoda) in the waters of Azerbaijan. ____ Hydrobiological Journal 27 (11), 91-94 (translated from Russian).
- ALLAN, J.O. & B. MALMQVIST, 1989. Diel activity of *Gammarus pulex* (Crustacea) in a south Swedish stream: Comparison of drift catches vs baited traps. ____ Hydrobiologia 179, 73-80.
- ALONSO, G.M., 1986. (Two new species of the genus *Gondogeneia* Barnard (Amphipoda, Eusiridae). ____ Physis (B.A.) A 44, 1-7. (In Spanish. *G. patagonica* n.sp. and *G. dentata* n.sp., both from Puerto Deseado (Santa Cruz prov., Argentina)).
- AMBROSE, W.G. & H.P. LEINAAS, 1990. Size-specific distribution and abundance of amphipods (*Gammarus setosus*) on an arctic shore: effects of shorebird predation? ____ Proceedings 24th European Marine Biological Symposium, Aberdeen 239-249.
- ANDERSIN, A-B. & H. SANDLER, 1991. Macrobenthic fauna and oxygen deficiency in the Gulf of Finland. ____ Memoranda Societas Fauna et Flora Fennica 67, 3-10.
- ANDERWALD, P.H., M. KONOR & U.H. HUMPESCH, 1991. Continuous drift samples of macro-invertebrates in a large river, the Danube in Austria. ____ Freshwater Biology 25, 461-476.
- ANDRES, H.G. & M. RAUSCHERT, 1990. *Paradyopedos*, eine neue Gattung der Podoceridae aus der Antarktis (Crustacea: Amphipoda: Gammaridae). ____ Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut 87, 171-179 (*Paradyopedos antarcticus* n.gen. n.sp. from 61S, 54W).
- ANSARI, Z.A., P. ROMANI, C.H. RIVANKER & A.H. PARULEKAS, 1990. Macrofaunal and meiofaunal abundance in six sandy beaches of Lakshadweep Islands, India. ____ Indian Journal of Marine Science 19, 159-164 (Not seen. Amph.?).
- AOKI, M., 1989. Reproductive implications of maternal care in *Sargassum* bed caprellids (Crustacea: Amphipoda). ____ Abstr. 5 int. Conf. Invertebr. Reprod., Nagoya,?
- AOKI, M., 1991. A new species of caprellid associated with hydroids from southern Japan (Crustacea: Amphipoda: Caprellidae). ____ Proceedings of the Biological Society of Washington 104, 91-95 (*Caprella glabra* n.sp. from Amakusa, W. Kyushu, on erect branching hydroids).
- AOKI, M., 1991. (A new sampling method and a new in situ rearing method for caprellid amphipods inhabiting *Sargassum* beds). ____ Benthos Research 41, 9-14 (In Japanese).
- AOKI, M. & T. KIKUCHI, 1990. *Caprella bidentata* Utinomi, 1947 (Amphipoda: Caprellidae), a synonym of *Caprella monoceros* Mayer, 1890, supported by experimental evidence. ____ Journal of Crustacean Biology 10, 537-543.
- AOKI, M. & T. KIKUCHI, 1991. Two types of maternal care for juveniles observed in *Caprella monoceros* Mayer, 1890 and *Caprella decipiens* Mayer, 1890 (Amphipoda: Caprellidae). ____ Hydrobiologia 223, 229-237.
- ARSUFFI, T-L. & K. SUBERKROPP, 1989. Selective feeding by shredders on leaf-colonizing stream fungi: Comparison of macroinvertebrate taxa. ____ Oecologia 79, 30-37.
- ASCHAN, M., 1990. Changes in soft bottom macrofauna communities along environmental gradients. ____ Annales Zoologici Fennici 27, 329-336.
- AURA, R-L., E.T. VALTONEN & A-B. ANDERSIN, 1990. On the acanthocephalan infection in some glacial relict crustaceans in Finland. ____ Annales Zoologici Fennici 27, 245 (*Pontoporeia*).
- AVDEEV, V.V., 1989. Parasitic amphipods of the family Cyamidae and the problem of the origin of the Cetacea. ____ Soviet Journal of Marine Biology 15, 245-250 (Translated from Biol. Morya 4, 27-33, 1989).
- BACHELET, G., 1990. The choice of a sieving mesh size in the quantitative assessment of marine macrobenthos: a necessary compromise between aims and constraints. ____ Marine Environmental Research 30, 21-35.
- BADEN, S. Pihl, 1990. The cryptofauna of *Zostera marina* (L.): abundance, biomass and population dynamics. ____ Netherlands Journal of Sea Research 27, 81-92.
- BALBUENA, J.A. & J.A. RAGA, 1991. Ecology and host relationships of the whale-lice *Isocyamus delphini* (Amphipoda: Cyamidae) parasitizing Long-finned pilot whales (*Globicephala melas*) off the Faroes (Northeast Atlantic). ____ Canadian Journal of Zoology 69, 141-145.
- BARLOCHER, F. & J.H. MURDOCH, 1989. Hyporheic biofilms - a potential food source for interstitial animals. ____ Hydrobiologia 184, 61-67.
- BARNARD, J.L. & C.M. BARNARD, 1990. Index to marine Gammaridea (Amphipoda) (except section Gammarids). ____ Published by Division of Invertebrate Zoology, National Museum of Natural History Washington DC, 221 pp.
- BARNARD, J.L. & C.M. BARNARD, 1990. Geographic index to marine Gammaridea (Amphipoda). ____ Published by Division of Invertebrate Zoology, National Museum of Natural History Washington, DC, 139 pp.
- BARNARD, J.L. & C.M. BARNARD, 1990. Index to freshwater Gammaridea (Amphipoda) (Including marine species of section Gammarida). ____ Published by Division of Invertebrate Zoology, National Museum of Natural History, Washington DC, 108 pp.
- BARNARD, J.L. & C. INGRAM, 1990. Lysianassoid

- Amphipoda (Crustacea) from deep-sea thermal vents. _____ *Smithson. Contr. Zool.* 499, 1 - 80. (Deals with *Euonyx mytilus* n. sp. (Galapagos Vents), with key to *Euonyx* s.l., *Hirondellea gigas*, *H. glutonis* n.sp. (13N rift), *H. guyoti* n.sp. (Hess Guyot), *H. brevicaudata*, with key to *Hirondellea*, *Orchomene* (*Abyssorchomene*) *distinctus* (transf. from *Orchomenella*), *O. (A.) abyssorum*, *Ventiella* n.gen., *V. sulfuris* n.sp. (type, Galapagos Rift vent), with key to *Ventiella* and *Schisturella*, and the *Valettioopsis*- group (several keys), with *Valettioopsis*, *Apotectonia* n.gen. with type *A. heterostegos* n.sp. (Galapagos Vents), *Diatectonia* n. gen. with type *D. typhodes* n.sp. (Hamilton Guyot), *Tectoalopsis* n. gen. with type *T. wegneri* n. sp. (12°48'N, 103°56'W), *T. regelatus* n.sp. (Hess Guyot), *T. nebulosus* n.sp. (Jasper Seamount), *T. diabolus* n. sp. (12°48'N, 103°56'W) and *T. fusilus* n.sp. (off Punto S. Telmo, W. Mexico), and *Transtectonia* n.gen. with type *T. torrentis* n.sp. (12°48'N, 103°56'W). All species are from deep-sea vent areas).
- BARNARD, J.L. & G.S. KARAMAN, 1991. The families and genera of marine gammaridean Amphipoda (except marine gammaroides). _____ *Records of the Australian Museum, Supplement* 13, 1-417, 419-866 (This, the new amphipod bible, is Jerry Barnard's farewell present to his colleagues. It is reviewed elsewhere in this issue).
- BARNARD, J.L., K. SANDVED & J.D. THOMAS, 1991. Tube-building behavior in *Grandidierella*, and two species of *Cerapus*. _____ *Hydrobiologia* 223, 2399-254.
- BARRERA-ORO, E.R. & R.J. CASAUX, 1990. Feeding selectivity in *Notothenia neglecta* Nybelin, from Potter Cave, South Shetland Island, Antarctica. _____ *Antarctic Science* 2, 207-213.
- BASFORD, D., A. ELEFATHERIOU & D. RAFFAELLI, 1990. The infauna and epifauna of the northern North Sea. _____ *Netherlands Journal of Sea Research* 25, 165-173.
- BAUDIN, J.P., A.F. FRITSCH & J. GEORGES, 1990. Influence of labelled food type on the accumulation and retention of ⁶⁰Co by a freshwater fish, *Cyprinus carpio* L. _____ *Water Air Soil Poll.* 51, 261-270 (Not seen. *Gammarus pulex* used as food).
- BEAUMONT, A.R., P.B. NEWMAN, D.K. MILLS, M.J. WALDOCK, D. MILLER & M.E. WAITE, 1989. Sandy-substrate microcosm studies on tributyltin (TBT) toxicity to marine organisms. _____ *Scientia Marina* 53, 737-743 (i.a. *Corophium volutator*)
- BECKER, D.S., G. R. BILYARD & T.C. GINN, 1990. Comparisons between sediment bioassays and alterations of benthic macroinvertebrate assemblages at a marine superfund site: Commencement Bay, Washington. _____ *Environmental Toxicology and Chemistry* 9, 669-686. (i.a. mortality tests on *Rhepoxyneus abronius*).
- BELL, S.S., 1991. Amphipods as insect equivalents? An alternative view. _____ *Ecology* 73, 350-354.
- BELLAN-SANTINI, D., 1990. Nouvelles espèces d'*Orchomene* s.l. (Crustacea- Amphipoda) des fonds abyssaux. Affinités avec les autres *Orchomene* profonds. _____ *Beaufortia* 41, 15-23. (*O. kaikai* n.sp. (35°N, 142°E, inside the bivalve *Calyptogena phaseoliformis*), and *O. stocki* n.sp. (13°N, 59°W, in sponge washings). A list of deepwater *Orchomene* s.l. is provided).
- BELLAN-SANTINI, D., 1990. Mediterranean deep-sea amphipods: Composition, structure and affinities of the fauna. _____ *Progress in Oceanography* 24, 275-287 (Not seen).
- BERGERSEN, R. & A. KLEMETSEN, 1989. Freshwater eel *Anguilla anguilla* (L.) from North Norway, with emphasis on occurrence, food, age and downstream migration. _____ *Nordic Journal of Freshwater Research* 64 (1988), 54-66. (*Gammarus lacustris* important prey).
- BERMAN, D.I., A.V. ALFIMOV & A.N. LEIRIKH, 1990. (Wintering conditions and cold- resistance of the amphipod, *Traskorchestia ditmari* on the coast of the Sea of Okhotsk.) _____ *Biologiya Morya* (Vladivostok) 1990-5, 31-36 (In Russian, not seen).
- BERNINI, F. & P.A. NARDI, 1990. (Observations on the diet of *Acipenser naccarii* Bp. (Osteichthyes, Acipenseridae) in the Pavia stretch of the Po and Ticino rivers). _____ *Museo Regionale de Science Naturale Bolletino* (Torino) 8, 429-440 (In Italian, not seen. Gammarids dominant prey).
- BERTRAN, C.E., 1989. (Zonation and temporal dynamics of the intertidal macroinfauna in the Lingue river estuary (Valdivia, Chile)). _____ *Revista Chilense de Historia Naturale* 62, 19-32 (In Spanish, not seen).
- BERESLOVSKIJ, E.G., 1989. (The feeding of skates, *Raja radiata* and *R. fyllae*, in the Barents and Norwegian Seas). _____ *Vopr. Ikhtiol.* 29, 994-1002 (In Russian, not seen. Young skates eat many amphipods).
- BEUKEMA, J.J., 1991. Changes in composition of bottom fauna of a tidal-flat area during a period of eutrophication. _____ *Marine Biology* 111, 293-301.
- BIERNBAUM, C.K., 1989. Distribution and seasonality of branchiopod and malacostracan crustaceans of the Santee National Wildlife Refuge, South Carolina. _____ *Brimleyana* 5, 7-30 (i.a. *Hyaella azteca* and *Crangonyx richmondensis*).
- BIKUNA, B. de & N. PRAT, 1991. Factors affecting the distribution of gammarids in chalk-streams of Bizkaia (Basque Country Northern Spain). _____ *Archiv für Hydrobiologie* 122, 463-478.
- BLINN, D.W. & R.W. DAVIES, 1990. Concomitant diel vertical migration of a predatory leech and its amphipod prey. _____ *Freshwater Biology* 24, 401-408 (*Hyaella montezuma*).
- BLOMQUIST, S., 1990. Sampling performance of Ekman grab - in situ observations and design

- improvements. ____ *Hydrobiologia* 206, 245-250.
- BLOMQUIST, S., 1991. Quantitative sampling of soft-bottom sediments: problems and solutions. ____ *Marine Ecology Progress Series* 72, 295-304.
- BOGATOV, V.V., 1991. (Growth and production of amphipods in rivers of southern Primorski Krai (Russian SFSR, USSR)). ____ *Gidrobiologicheskoe Zhurnal* 27 (1), 39-46 (In Russian, not seen. *Gammarus lacustris?*).
- BOROWSKY, B., 1989. The effects of residential tubes on reproductive behaviors in *Microdeutopus gryllotalpa* (Costa) (Crustacea: Amphipoda). ____ *Journal of Experimental Marine Biology and Ecology* 128, 117-125.
- BOROWSKY, B., 1991. Patterns of reproduction of some amphipod crustaceans and insights into the nature of their stimuli. ____ Pp 33-49 in R.T. Bauer & J.W. Martin (eds). *Crustacean sexual biology*. Columbia Univ. Press, N.York.
- BOROWSKY, B. & P. AITKEN-ANDERS, 1991. Sexually dimorphic free-swimming behavior in the amphipod crustacean *Ampelisca abdita*. ____ *Journal of Marine Biology Association UK* 71, 655-664.
- BOROWSKY, R. & B. BOROWSKY, 1990. Feeding inhibition of the salt-marsh amphipod *Gammarus palustris* Bousfield, 1969 by heat-labile substances in *Ulva lactuca* L. ____ *Crustaceana* 59, 299-301.
- BOTOSANEANU, L. & J.R. HOLSINGER, 1991. Some aspects concerning colonization of the subterranean realm - especially of subterranean waters: a response to Rouch & Danielopol, 1987. ____ *Stygologia* 6, 11-39.
- BOTTUM, D.L. & K.I. JONES, 1990. Species composition, distribution, and invertebrate prey of fish assemblages in the Columbia River Estuary. ____ *Progress in Oceanography* 25, 243-270 (Not seen).
- BOUDRIAS, M.A., 1991. Methods for the study of amphipod swimming: behavior, morphology, and fluid dynamics. ____ *Hydrobiologia* 223, 11-25.
- BOUSFIELD, E.L., 1990. A new genus and species of hadzioidean amphipod crustacean from anchialine pools in Hawaii. ____ *Beaufortia* 41, 25-30 (*Carinomelita janstocki* n. gen. n. sp., a large predatory melitid).
- BOUSFIELD, E.W., 1991. New sandhoppers (Crustacea: Amphipoda) from the Gulf Coast of the United States. ____ *Gulf Research Reports* 8, 271-283 (Deals with *Americorchestia* n.gen. (type: *Orchestia longicornis*), *A. salomani* n.sp. (W. Florida), *A. barbarae* n.sp. (Texas), and *A. heardi* n.sp. (Mississippi). With key to all US talitrid genera and to all *Americorchestia* spp).
- BOUTIN, C. & B. IDBENNACER, 1989. Faune stygobie de Sud de l'Anti-Atlas marocain: Premiers résultats. ____ *Revue des Sciences de l'Eau* 2, 891-904 (Not seen).
- BOWLBY, M.R., E.A. WIDDER & J.F. CASE, 1991. Disparate forms of bioluminescence from the amphipods *Cyphocaris faurei*, *Scina crassicornis* and *S. borealis*. ____ *Marine Biology* 108, 247-253.
- BRATTEGAARD, T. & J.H. FOSSÅ, 1991. Replicability of an epibenthic sampler. ____ *Journal of Marine Biology Association U.K.* 71, 153-166.
- BRITTON, J.E. & T.J. EIKELAND, 1988. Invertebrate drift. A review. ____ *Hydrobiologia* 166, 77-93.
- BRODEUR, R.D. & W.G. PEARCY, 1990. Trophic relations of juvenile Pacific salmon off the Oregon and Washington coast. ____ *Fisheries Bulletin* 88, 617-636.
- BROWN, A.C. & A. McLACHLAN, 1990. Ecology of sandy shores. ____ Elsevier, Amsterdam, 328 pp (Not seen. Will someone please review this book for AN?).
- BRUSCA, R.C. & M.H. THURSTON, 1990. Comments on the proposed designation of *Lysianax cubensis* Stebbing, 1897 as the type species of *Shoemakerella Pirlot*, 1936 (Crustacea, Amphipoda). ____ *Bulletin of Zoological Nomenclature* 47, 213 (Independent supportive comments by the 2 authors).
- BUHL-JENSEN, L. & J.H. FOSSÅ, 1991. Hyperbenthic crustacean fauna of the Gullmarfjord area (western Sweden): species richness, seasonal variation and long-term changes. ____ *Marine Biology* 109, 245-258.
- BURGER, A.E. & D.W. POWELL, 1990. Diving depths and diet of Cassin's Auklet at Reef Island, British Columbia. ____ *Canadian Journal of Zoology* 68, 1572-1577 (Amph. quite important prey).
- BUSCHMANN, A.H., 1991. Amphipod food preference and *Iridaea* spp. (Rhodophyta) spore release and dispersal. ____ *Journal of Marine Biology Association UK* 71, 891-897.
- BUSCHMANN, A.H. & A. BRAVO, 1990. Intertidal amphipods as potential dispersal agents of carpospores of *Iridaea laminarioides* (Gigartinales, Rhodophyta). ____ *Journal of Phycology* 26, 417-420.
- CAHOON, L.B. & C.R. TRONZO, 1988. A comparison of demersal zooplankton collected at Alligator Reef, Florida, using emergence and reentry traps. ____ *Fisheries Bulletin* 86, 838-845.
- CAHOON, L.B. & C.R. TRONZO, 1990. New records of amphipods and cumaceans in demersal zooplankton collections from Onslow Bay, North Carolina. ____ *Journal of the Elisha Mitchell Scientific Society* 106, 78-84 (Four amphipods new to N. Carolina waters, viz. *Erichthonius difformis*, *Megaluropus agilis*, *Orchomenella pinguis* and *Tiron spiniferum*).
- CAINE, E.A., 1989. Caprellid amphipod behavior and predatory strikes by fish. ____ *Journal of Experimental Marine Biology and Ecology* 126, 173-180.

- CAINE, E.A., 1991. Reproductive behavior and sexual dimorphism of a caprellid amphipod. ____ *Journal of Crustacean Biology* 11, 56-63 (*Caprella laeviuscula*).
- CAINE, E.A., 1991. Caprellid amphipods: fast food for the reproductively active. ____ *Journal of Experimental Marine Biology and Ecology* 148, 27-33.
- CAMACHO, A.I. & C. PUCH, 1990. Une methode pour la réalisation de dissection et de préparations provisoires de petits crustacés aquatiques souterrains et interstitiels. ____ *Crustaceana* 59, 1-8.
- CAMMEN, L.M., S. CORWIN & J.P. CHRISTENSEN, 1990. Electron transport system (ETS) activity as a measure of benthic macrofaunal metabolism. ____ *Marine Ecology - Progress Series* 65, 171-182 (i.a. *Corophium volutator*).
- CASADEVALL, M. & J. MATALLONAS, 1990. Feeding habits of *Gnathopis mystax* (Delaroche, 1809) (Anguilliformes, Congridae) in the western Mediterranean. ____ *Journal of Fish Biology* 37, 827-829 (Amph. p. 828).
- CASAUX, R.J., A.S. MAZZOTTA & E.R. BARRERA-ORO, 1990. Seasonal aspects of the biology and diet of nearshore nototheniid fish at Potter Cove, South Shetland Islands, Antarctica. ____ *Polar Biology* 11, 63-72 (Gammarid amphipods main food).
- CEDERWALL, H., 1990. Diurnal pelagic swimming activity of *Pontoporeia* ____ a waste of energy? ____ *Annales Zoologici Fennici* 27, 307 (Abstract only).
- CHAMIER, A-C., 1991. Cellulose digestion and metabolism in the freshwater amphipod *Gammarus pseudolimnaeus* Bousfield. ____ *Freshwater Biology* 25, 33-40.
- CHARVAT, D.L., W.G. NELSON & T.A. ALLENBOUGH, 1990. Composition and seasonality of sand-beach amphipod assemblages off the East coast of Florida. ____ *Journal of Crustacean Biology* 10, 446-454.
- CHERNYSHEVA, I.V., 1990. Effect of pollution on the benthic fauna of the Lower Don. ____ *Gidrobiologesky Zhurnal* 26 (1), 65-70 (Russian translated into English).
- CHESSA, L.A., G. BIONDA, M.C. BUIA, M.C. GAMBI, M. LORENTI, R. MAJ, R. MANCONI, M. MARTINELLI, M.G. PINTUS, G.F. RUSSO, M.B. SCIPIONE & E. TARAMELLI, 1989. (A *Posidonia oceanica* bed in North-western Sardinia) ____ *Oebalia* 15, 99-107. (In Italian).
- CHEVRIER, A., P. BRUNEL & D.J. WILDISH, 1991. Structure of a suprabenthic shelf sub-community of gammaridean Amphipoda in the Bay of Fundy compared with similar sub-communities in the Gulf of St. Lawrence. ____ *Hydrobiologia* 223, 81-104.
- CHILTON, E.W., 1990. Macroinvertebrate communities associated with three aquatic macrophytes (*Ceratophyllum demersum*, *Myriophyllum spicatum*, and *Vallisneria americana*) in Lake Onalaska, Wisconsin. ____ *Journal of Freshwater Ecology* 5, 455-466 (*Hyaella azteca* most abundant).
- CHILTON, E.W. & F.J. MARGRAF, 1990. Effects of fish predation on invertebrates associated with a macrophyte in Lake Onalaska, Wisconsin. ____ *Journal of Freshwater Ecology* 5, 289-296 (i.a. *Hyaella azteca*).
- CHRISTIANSEN, B., O. PFANNKUCHE & H. THIEL, 1990. Vertical distribution and population structure of the necrophagous amphipod *Eurythenes gryllus* in the West-European basin. ____ *Marine Ecology - Progress Series* 66, 35-45.
- CIAVATTI, G., 1989. (Talitrids (Crustacea, Amphipoda) on the beaches of La Guadeloupe; Description of two new species). ____ *Ann. Inst. océanogr.* 65, 127-146 (In French, not seen. Deals with *Floresorchestia guadalupensis* n.sp., *Tethorchestia karukarae* n.sp., *Platorchestia platensis*, *Talorchestia sulensonii* and *Tethorchestia antillensis*).
- COLEMAN, C.O., 1989. On the nutrition of two antarctic Acanthonotozomatidae (Crustacea: Amphipoda). Gut contents and functional morphology of mouthparts. ____ *Polar Biology* 9, 287-294 (*Echiniphimedia hodgsoni* and *Maxilliphimedia longipes*).
- COLEMAN, C.O., 1990. Two new Antarctic species of the genus *Epimeria* (Crustacea: Amphipoda: Paramphithoidae), with description of juveniles. ____ *Journal of the Royal Society of New Zealand* 20, 151-178 (Deals with *E. grandirostris*, *E. oxycarinata* n. sp. (61°10'S, 55°58'W), and *E. pulchra* n.sp. (60°43'S, 45°31'W). Also the much smoother juveniles of both new spp are described and illustrated.)
- COLEMAN, C.O., 1990. *Bathypanoploea schellenbergi* Holman & Watling, 1983, an antarctic amphipod (Crustacea) feeding on Holothuroidea. ____ *Ophelia* 31, 197-205.
- COLEMAN, C.O., 1990. Anatomy of the alimentary canal of *Parandania boeckii* (Stebbing, 1888) (Crustacea, Amphipoda, Stegocephalidae) from the Antarctic Ocean. ____ *Journal of Natural History* 24, 1573-1585 (A Cnidarian feeder).
- COLEMAN, C.O., 1991. Comparative fore-gut morphology of Antarctic Amphipoda (Crustacea) adapted to different food sources. ____ *Hydrobiologia* 223, 1-9.
- COLEMAN, C.O. & J.L. BARNARD, 1991. A review of the genus *Pariphimedia* (Crustacea: Amphipoda: Iphimediidae), with redescription of two species from the Southern Ocean. ____ *Invertebrate Taxonomy* 5, 527-539 (With diagnosis, key to spp. and complete redescription of *P. integricauda* and *P. normani*).
- COLEMAN, C.O. & J.L. BARNARD, 1991. Redescription of two species of *Pseudiphimediella* from

the Southern Ocean (Amphipoda: Iphimediidae). _____ Proceedings of the Biological Society of Washington 104, 76-90 (*P. nodosa* and *P. glabra*).

COLEMAN, C.O. & J.L. BARNARD, 1991. Revision of Iphimediidae and similar families (Amphipoda: Gammaridea). _____ Proceedings of the Biological Society of Washington 104, 253-268 (Deals with the following families, with keys and diagnoses: Amathillopsidae revived (monotypic), Epimeriidae (=Paramphithoidae auct.) with the genera *Paramphithoe* (type), *Actinacanthus*, *Epimeria*, *Epimeriella*, *Metepimeria* and *Uschakoviella*; Acanthonotozomellidae n. fam., with the genera *Acanthonotozomella* (type), *Acanthonotozomoides*, *Acanthonotozomopsis* and *Amatiguakius*; Acanthonotozomatidae (now monotypic); Ochlesidae, with the genera *Ochlesis* (type), *Curidia*, *Meraldia* and *Ochlesodius*; Dikwididae n.fam. (monotypic); Iphimediidae, with the genera *Iphimedia* (type), *Anchiphimedia*, *Anisoiphimedia*, *Coboldus*, *Echiniphimedia*, *Gnathiphimedia*, *Iphimediella*, *Labriphimedia*, *Maxilliphimedia*, *Nodotergum*, *Paranchiphimedia*, *Pariphimedia*, *Pseudiphimediella* and *Stegopanoploea*; Odiidae n.fam., with the genera *Odius* (type) and *Postodius*; Astyridae (in paper consistently misspelled Astyridae), with the genera *Astyra* (type) and *Eclysis*; Stilipedidae, with the genera *Stilipes* (type), *Bathypanoploea*, *Alexandrella* and *Astyroides*; Lafystiidae (monotypic here, since *Paralafystius* and *Protolafystius*, both Bousfield, 1987 apparently have been overlooked. WV) and Laphystiopsidae (also monotypic, since *Prolaphystiopsis* here is tentatively synonymized with *Laphystiopsis*). Otherwise, *Epimeriella victoria* is removed to *Epimeria*, *Bathypanoploea* is transferred to the Stilipedidae, and *Epimeriella* returned to the Epimeriidae).

COLEMAN, C.O. & J.L. BARNARD, 1991. *Curidia magellanica*, new species, from Magellan Strait (Crustacea: Amphipoda: Ochlesidae). _____ Proceedings of the Biological Society of Washington 104, 269-278 (With a review of the Ochlesidae, its genera and species, and a key to all species).

COLEMAN, C.O. & J.L. BARNARD, 1991. *Amatiguakius forsberghii*, a new genus and species from Alaska (Marine Amphipoda: Epimeriidae). _____ Proceedings of the Biological Society of Washington 104, 279-287 (In spite of the title, this new taxon from Amatiguchi, Aleutian Isl., is not classified in the Epimeriidae, but in the recently erected family Acanthonotozomellidae).

CONLAN, K.E. 1983 (strangely omitted in A.N. earlier). The amphipod superfamily Corophioidea in the northeastern Pacific region 3. Family Isaeidae: systematics and distributional ecology. _____ National Museum of Natural Sciences, Ottawa, Publications in Natural Sciences 4, 1-75 (A further issue in the series of W. Canadian and Alaskan amphipods. Thirty-one species are described, of which the following are new: *Gammaropsis ellisi* (Br. Col.). *G. shoemakeri* (= *Eurystheus tenuicornis* var. *lobata* Shoemaker) (Vancouver Isl., B.C.), *Paraeurystheus tzvetkovae* (Aleutian Isl.), *Podoceropsis amchitkensis*

(Al. Isl.), *P. angustimana* (Vancouver Isl., B.C.), *P. chionoecetophila* (Oregon, from the Tanner Crab, *Ch. tanneri*), *P. setosa* (Al. Isl.), *Cheirimedeia macrocarpa americana* n.ssp. (B.C.), *C. macrodactyla* (St. Lawrence Isl., Alaska), *C. similicarpa* (Vancouver Isl., B.C.), *Photis macinerineyi* (Victoria, B.C.), *P. oligochaeta* (B.C.), *P. pachydactyla* (Vancouver Isl. B.C.), and *P. parvidous* (Vancouver Isl. B.C.). As the result of a numerical analysis, the genera *Paraeurystheus* and *Podoceropsis* are kept apart from *Gammaropsis*, *G. dentatus* is transferred to *Paraeurystheus*, *P. gurvitzii* to *Gammaropsis* and *Protomedeia dulkeiti*, *P. gurjanovae*, *P. palmata* and *P. macrocarpa* to the rediagnosed genus *Cheirimedeia*).

CONLAN, K.E., 1990. Revision of the crustacean amphipod genus *Jassa* Leach (Corophioidea: Ischyroceridae). _____ Canadian Journal of Zoology 68, 2031-2075 (A long awaited and much needed revision of this difficult genus. Deals with *J. fenwicki* n.sp. (Snares, N.Z.), *J. justii* n.sp. (Macquarie Isl. subantarctic), *J. alonsoae* n.sp. (S. Georgia), *J. hartmannae* n. sp. (Snares, N.Z.), *J. gruneri* n. sp. (Tasmania), *J. staudei* n.sp. (Br. Columbia, Canada), *J. marmorata*, *J. oclairi* n.sp. (Amchitka Isl., Alaska), *J. morinoi* n. sp. (Tababe Bay, Japan), *J. slatteryi* n.sp. (California), *J. carltoni* n.sp. (California), *J. borowskyae* n.sp. (Br. Columbia, Canada), *J. myersi* n.sp. (California), *J. ingens*, *J. shawi* n.sp. (Br. Columbia, Canada), *J. thurstoni* n.sp. (S. Orkney Isl., subantarctic), *J. pusilla*, *J. falcata* and *J. herdmanni*. A key to all spp. is also provided).

CONLAN, K.E., 1991. Precopulatory mating behavior and sexual dimorphism in the amphipod Crustacea. _____ Hydrobiologia 223, 255-282.

COREY, S.G., 1990. Distributional patterns of Amphipoda in the Bay of Fundy region, Canada. _____ Crustaceana 58, 291-308.

CORREA CRUZ, M., 1990. (Estimation of the caloric content of *Talorchestia margaritae* (Talitridae: Amphipoda). _____ Boletim dell Instituto Oceanografico de Venezuela, Universidad Oriente 24 (1985), 11-14 (In Spanish, not seen.)

COSTELLO, M.J., J.M.C. HOLMES, D. McGRATH & A.A.MYERS, 1990. A review and catalogue of the Amphipoda (Crustacea) in Ireland. _____ Irish Fisheries Investigations Series B. (Marine) 33 (1989), 1-70 (Lists Irish records of spp recorded in and around Ireland, down to 200 m depth. An additional 47 spp are mentioned from deeper water off the Irish West coast. All you ever wanted to know about Ireland's amphipods).

CRIPPS, G.C. & J. PRIDDLE, 1991. Hydrocarbons in the Antarctic marine environment. _____ Antarctic Science 3, 233-250 (A review paper.)

CRISP, D.J. & B. MWAISEJE, 1989. Diversity in intertidal communities with special reference to the *Corallina officinalis* community. _____ Scientia Marina 53. 365-372.

CROY, M.I. & R.N. HUGHES, 1991. The role of

- learning and memory in the feeding behavior of the fifteen-spined stickleback, *Spinachia spinachia*. ____ *Animal Behaviour* 41, 149-159 (*Gammarus locusta* as prey).
- CROY, M.I. & R.N. HUGHES, 1991. The influence of hunger on feeding behaviour and on the acquisition of learned foraging skills by the fifteen-spined stickleback, *Spinachia spinachia*. ____ *Animal Behaviour* 41, 161-170 (*Gammarus locusta* as prey).
- CULVER, D.C., T.C. KANE, D.W. FONG, R. JONES, M.A. TAYLOR & S.C. SAUEREISEN, 1990. Morphology of cave organisms - is it adaptive? ____ *Memoires de Biospéologie* 17, 13-26.
- CURRAS, A. & J. MORA, 1991. (Benthic communities of the Ria del Eo (Galicia- Asturias, N.W. Spain).) ____ *Cahiers de Biologie Marine* 32, 57-81 (In Spanish)
- CYRUS, D.P. & T.J. MARTIN, 1988. Distribution and abundance of the benthos in the sediments of Lake Cubhu: A freshwater coastal lake in Zululand, South Africa. ____ *Journal of the Limnological Society of South Africa* 14, 93-101 (*Grandidierella lignorum* and *Corophium triaenonyx* numerically dominant.)
- DAILEY, M.D. & W.K. VOGELBEIN, 1991. Parasite fauna of three species of Antarctic whales with reference to their use as potential stock indicators. ____ *Fisheries Bulletin* 89, 355-365 (*Cyamus balaenopterae* on *Balaenoptera acutorostrata*, no cyamids on *B. borealis* or *Physeter*.)
- DANIEL, P.A. & A.I. ROBERTSON, 1990. Epibenthos of mangrove waterways and open embayments: Community structure and the relationship between exported mangrove detritus and epifaunal standing stock. ____ *Estuarine Coastal and Shelf Science* 31, 599-619.
- DANIELOPOL, D.L., 1990. The origin of the anchialine cave fauna-the 'deep sea' versus the 'shallow water' hypothesis tested against the empirical evidence of the Thaumacyprididae (Ostracoda). ____ *Bijdragen tot de Dierkunde* 60, 137-143. (The author prefers the 'shallow water' hypothesis.)
- DAUVIN, J-C., 1988. Rôle du macrobenthos dans l'alimentation des poissons demersaux vivant sur les fonds de sédiments fins de la Manche Occidentale. ____ *Cahiers de Biologie Marine* 29, 445-467.
- DAUVIN, J-CL. & D. BELLAN-SANTINI, 1990. An overview of the amphipod genus *Haploops* (Ampeliscidae). ____ *Journal of Marine Biology Association UK* 70, 887-903 (Comprises 15 valid spp. A key to females is provided, as well as data on ecology and distribution.)
- DAUVIN, J.CI., A. IGLESIAS & F. GENTIL, 1991. Nouvelles espèces pour l'Inventaire de la Faune Marine de Roscoff-Crustacés Amphipodes, Cumacés et Decapodes, Mollusques Gastropodes et Ascidies. ____ *Cahiers de Biologie Marine* 32, 121-128 (Adds *Iphimedia nexa*, *I. perplexa*, *I. spatula*, *Gitana sarsi*, *Peltocoxa brevirostris*, *Calliopius laeviusculus*, *Leucothoe procera*, *Normanion chevreuxi*, *Socarnes filicornis*, *Tryphosella horingi*, *T. minima*, *Cheirocratus assimilis* & *Stenopleustes nodifer*.)
- DAY, K.E. & I.M. SCOTT, 1990. Use of acetylcholinesterase activity to detect sublethal toxicity in stream invertebrates exposed to low concentration of organophosphate insecticides. ____ *Aquatic Toxicology* 18, 101-113 (i.o. *Hyalella azteca*)
- DeBLOIS, E.M. & W.C. LEGGETT, 1991. Functional responses and potential impact of invertebrate predators on benthic fish eggs: analysis of the *Calliopius laeviusculus* - capelin (*Mallotus villosus*) predator-prey system. ____ *Marine Ecology - Progress Series* 69, 205-216.
- DE BROYER, C & M. KLAGES, 1990. Studies on amphipod biology. ____ *Berichte zu Polar-forschung* 68, 113-115.
- DE BROYER, C. & M. KLAGES, 1990. The role of the gammaridean amphipods in the eastern Weddell Sea benthic communities. ____ *Belgian Journal of Zoology* 120, Supplement 1, ? (Abstract only).
- DE BROYER, C. & M. KLAGES, 1991. A new *Epimeria* (Crustacea, Amphipoda, Paramphithoidae) from the Weddell Sea. ____ *Antarctic Science* 3, 159-166 (*E. rubriques* n.sp., with data on its biology. A key to adult antarctic *Epimeria* is given.)
- DE BROYER, C. & W. VADER, 1990. Revision and notes on the biology of *Orchomenella recondita* (Stasek, 1958) (Amphipoda, Lysianassoidea), an associate of sea anemones. ____ *Beaufortia* 41, 31-38 ('*Allogaussia recondita*, an obligate endosymbiont of the sea anemone *Anthopleura elegantissima*, is here transferred to *Orchomenella* (*Orchomenella*), as the most apomorphic species in this genus.)
- DEHDASHTI, B. & D.W. BLINN, 1991. Population dynamics and production of the pelagic amphipod *Hyalella montezuma* in a thermally constant system. ____ *Freshwater Biology* 25, 131-141.
- DEHDASHTI, B & D.V. LIGHTNER, 1991. Observations on the biology of *Hyalella azteca* (Amphipoda) in a closed system. A study of a model system in microgravity. ____ *Crustaceana* 61, 233-340.
- DENTON, A.B. & A.R.D. CHAPMAN, 1991. Feeding preferences of gammarid amphipods among four species of *Fucus*. ____ *Marine Biology* 109, 503-506.
- DEZFULI, B.S, P.FRANZOI, P.TRISOLINI & R. ROSSI, 1989. On the crustacean hosts of the larval acanthocephalan parasites of fishes from a coastal lagoon of the Po River. ____ *Parassitologia* (Roma) 31, 51-58 (Not seen. Larvae of *Telosentis exiguus* found in 6 out of 2806 *Gammarus insensibilis*, but not in any *G. aequicauda*).

- DIAMOND, J.M., D.G. MACKLER, M. COLLINS & D. GRUBER, 1990. Derivation of a freshwater silver criteria for the New River, Virginia, using representative taxa. ____ *Environmental Toxicology and Chemistry* 9, 1425-1434 (i.a. *Hyalella azteca*).
- DIAZ-CASTANEDA, V., A. RICHARD & S. FRONTIER, 1989. Preliminary results on colonization, recovery and succession in a polluted area of the southern North Sea (Dunkerque's harbour, France). ____ *Scientia Marina* 53, 705-716.
- DICK, J.T.A. & R.W. ELWOOD, 1989. The causal and functional organization of mating behaviour in *Gammarus pulex* (Amphipoda). ____ *Behavioural Processes* 20, 111-123.
- DICK, J.T.A. & R.W. ELWOOD, 1990. Symmetrical assessment of female quality by male *Gammarus pulex* (Amphipods) during struggles over precopula females. ____ *Animal Behaviour* 40, 877-883.
- DICK, J.T.A., R.W. ELWOOD & D.E. IRVINE, 1990. Displacement of the native Irish freshwater amphipod *Gammarus duebeni* by the introduced *Gammarus pulex*. ____ *Irish Naturalists Journal* 23, 313-316.
- DITSWORTH, G.R., D.W. SCHULTS & J.K.P. JONES, 1990. Preparation of benthic substrates for sediment toxicity testing. ____ *Environmental Toxicology and Chemistry* 9, 1523-1529 (*Rhepoxynius abronius* - bioassay).
- DITTRICH, B., 1991. Biochemical composition of the parasitic amphipod *Hyperia galba* in relation to age and starvation. ____ *Journal of Comparative Physiology B* 161, 441-449.
- DODDS, W.K., 1990. Hydrodynamic constraints on evolution of chemically mediated interactions between aquatic organisms in unidirectional flows. ____ *Journal of Chemical Ecology* 16, 1417-1430.
- DONN, Th. E. & A.C. COCKCROFT, 1989. Macrofaunal community structure and zonation of two sandy beaches on the central Namib coast, South West Africa/Namibia. ____ *Madoqua* 16, 129-136 (Not seen).
- DUFFY, J.E., 1990. Amphipods on seaweeds: Partners or pests? ____ *Oecologia* 83, 267-276.
- DUFFY, J.E. & M.E. HAY, 1991. Amphipods are not all created equal: a reply to Bell. ____ *Ecology* 72, 354-358.
- DUFFY, J.E. & M.E. HAY, 1991. Food and shelter as determinants of food choice by a herbivorous marine amphipod. ____ *Ecology* 72, 1286-1298 (*Ampithoe longimana*).
- DUNHAM, P.J. & A. HURSHMAN, 1990. Precopulatory mate guarding in the amphipod *Gammarus lawrencianus*: Effects of social stimulation during the post-copulation interval. ____ *Animal Behaviour* 39, 976-979.
- DUNHAM, P.J. & A.M. HURSHMAN, 1991. Precopulatory mate guarding in aquatic Crustacea: *Gammarus lawrencianus* as a model system. ____ Pp. 50-66 in R.T. Bauer & J.W. Martin (ed.). *Crustacean sexual biology*. Columbia Univ. Press. N. York.
- DUNN, A.M., J. ADAMS & J.E. SMITH, 1990. Intersexes in a shrimp: a possible disadvantage of environmental sex determination. ____ *Evolution* 44, 1875-1878 (The 'shrimp' is *Gammarus duebeni*).
- EASTON, M.D.L. & R.K. MISRA, 1988. Mathematical representation of crustacean growth. ____ *J. du Conseil CIEM* 45, 61-72.
- EDGAR, G.J., 1990. The use of the size structure of benthic macrofaunal communities to estimate faunal biomass and secondary production. ____ *Journal of Experimental Marine Biology and Ecology* 137, 195-214.
- EDGAR, G.J., 1990. The influence of plant structure on the species richness, biomass and secondary production of macrofaunal assemblages associated with Western Australian seagrass beds. ____ *Journal of Experimental Marine Biology and Ecology* 137, 215-240.
- EDGAR, G.J., 1990. Population regulation, population dynamics and competition amongst mobile epifauna associated with seagrass. ____ *Journal of Experimental Marine Biology and Ecology* 144, 205-234.
- ELMGREN, R., S. ANKAR & G. EJDUNG, 1990. Amphipods of the genus *Pontoporeia* as key elements in the Baltic benthic. ____ *Annales Zoologici Fennici* 27, 303-304.
- ELWOOD, R.W. & J.T.A. DICK, 1989. The amorous *Gammarus*: The relationship between precopula duration and size-assortative mating in *G. pulex*. ____ *Animal Behaviour* 39, 828-833.
- ERNST, W., K. DOE, P. JONAH, J. YOUNG, G. JULIEN & P. HENNIGER, 1991. The toxicity of chlorothalonil to aquatic fauna and the impact of its operational use on a pond ecosystem. ____ *Archive of Environmental Contamination and Toxicology* 21, 1-9 (Not seen).
- ERNST, W. & M. KLAGES, 1991. Bioconcentration and biotransformation of ¹⁴C-hexachloro-cyclohexane and ¹⁴C-hexachlorobenzene in the Antarctic amphipod *Orchomene plebs* (Hurley, 1965). ____ *Polar Biology* 11, 249-252.
- ESSAFI, K., J. MATHIEU & J.M. LEGAY, 1991. Asymmetries and locomotion behavior for *Niphargus* (stygobiont Amphipoda). ____ *Stygologia* 6, 77-89 (Not seen).
- EVANS, M-S., G.O. NOGUCHI & C.P. RICE, 1991. The biomagnification of polychlorinated biphenyls, toxaphene and DDT compounds in a Lake Michigan offshore food web. ____ *Archive of Environmental Contamination and Toxicology* 20, 87-93 (i.a. *Pontoporeia hoyi*).

- EVANS, M.S., M.A. QUIGLEY & J.A. WOJCIK, 1990. Comparative ecology of *Pontoporeia hoyi* populations in southern Lake Michigan (USA): The profundal region versus the slope and shelf region. ____ *Journal of Great Lakes Research* 16, 27-40 (Not seen).
- FAIN, A. & M.J. COLLOFF, 1990. A new genus and two new species of mites (Acari, Histiostomatidae) phoretic on *Traskorchestia traskiana* (Stimpson, 1857) (Crustacea, Amphipoda). ____ *Journal of Natural History* 24, 667-672. (*Traskorchestianoetus spiceri* n.gen. n.sp. and *T. brevipes* n.sp., both from Vancouver Isl., Brit. Columbia).
- FELL, P.E., K.A. MURPHY, M.A. PECK & M.L. RECCHIA, 1991. Re-establishment of *Melampus bidentatus* (Say) and other macroinvertebrates on a restored impounded tidal marsh: Comparison of populations above and below the impoundment-dike. ____ *Journal of Experimental Marine Biology and Ecology* 152, 33-48 (A Connecticut study, i.a. *Orchestia grillus* and *O. uhleri*).
- FIGUEIREDO-ALBUQUERQUE, E., & C. de OLIVEIRA CASTRO GUERON, 1989. (Seasonal variation of the vagile fauna of *Sargassum stenophyllum* (Martens) at two stations with different intensity of wave exposure in Ibicui, Rio de Janeiro State, Brazil). ____ *Memorias Instituto Oswaldo Cruz, Rio de Janeiro* 84, Supplement 4, 9-18 (In Portuguese, not seen).
- FOSTER, J.M. & S.E. LECROY, 1991. *Haustorius jayneae*, a new species of haustoriid amphipod from the northern Gulf of Mexico, with notes on its ecology at Panama City beach, Florida, USA. ____ *Gulf Research Reports* 8, 259-270.
- FRANCE, R.L., E.T. HOWELL, M.J. PATERSON & P.M. WELBOURN, 1991. Relationship between littoral grazers and metaphytic algae in five softwater lakes. ____ *Hydrobiologia* 220, 9-27 (Ontario, Canada).
- FREDETTE, T.J., R.J. DIAZ, J.v. MONTFRANS & R.J. ORTH, 1990. Secondary production within a seagrass bed (*Zostera marina* and *Ruppia maritima*) in Lower Chesapeake Bay. ____ *Estuaries* 13, 431-440 (i.a. *Gammarus mucronatus*).
- GABLE, M. & E.A. LAZO-WASEM, 1990. Lysianassidae (Amphipoda: Lysianassoidea) of Bermuda. ____ *Journal of Crustacean Biology* 10, 721-734 (Deals with *Ensayara entrichoma* n.sp. and *Shoemakerella lowryi* n.sp. (= *Lysianassa punctata* s. Kunkel.))
- GAGE, J.D. & P-A. TYLER, 1991. Deep-sea biology: A natural history of organisms at the deep-sea floor. ____ Cambridge University Press, 504 pp.
- GAUVIN, J.M., W.S. GARDNER & M.A. QUIGLEY, 1989. Effects of food removal on nutrient release rates and lipid content of Lake Michigan *Pontoporeia hoyi*. ____ *Canadian Journal of Fisheries and Aquatic Science* 46, 1125-1130.
- GEISEL, T. & U. MESZNER, 1989. Flora und Fauna des Bodens im Greifswalder Bodden. ____ *Meer und Museum* 5, 44-51.
- GEORGE, J.D. & A.A. FINCHAM, 1989. Macroinvertebrate communities of chalk shores in Southeastern England. ____ *Scientia Marina* 53, 373-385 (Amph. p. 379).
- GINET, R., 1987. Le peuplement animal des karsts de France, 1-ère partie; la faune aquatique. ____ *Karstologia* 10, 43-51 (Not seen).
- GINET, R., 1990. Répartition en France de l'amphipode hypogé *Niphargopsis casparyi* (Pratz) (Crustacea). ____ *Bulletin Mensuel du Societé Linnéenne de Lyon* 59, 350-356. (Not seen).
- GINET, R., 1991. Crustacés Amphipodes Gammarides Niphargidae. Bilan systématique du genre *Niphargus* en France. ____ (Not seen. Illustrated key to all species, published by Laboratoire d'Hydrobiologie et Ecologie souterraines, Univ. Claude-Bernard Lyon 1, Villeurbanne, France.)
- GINSBURGER-VOGEL, T., 1989. Determinisme des anomalies de sex ratio à heredité paternelle chez le crustacé amphipode *Orchestia gammarellus* Pallas. ____ *Invertebrate Reproduction and Development* 16, 183-194.
- GIOVANNI, M.V. di & E. GORETTI, 1990. (Note on the knowledge of Lake Piediluco, Italy: The benthos). ____ *Rivista di Idrobiologia* 27 (1988), 697-714 (In Italian, not seen).
- GOLIKOV, A.A., 1990. (Amphipods of the Laptev Sea and adjacent waters). ____ *Issledonye Fauna Morej SSSR* 37 (4), 235-257 (In Russian. Deals with 178 spp of Gammaroidea. Data on zoogeography.)
- GONZALEZ, E., 1991. Actual state of gammaridean amphipods taxonomy and catalogue of species from Chile. ____ *Hydrobiologia* 223, 47-68 (Extremely useful checklist.)
- GONZALEZ, E., 1991. The genus *Hyale* in Chile (Crustacea, Amphipoda). ____ *Spixiana* 14, 125-142 (Deals with *H. rubra*, *H. maroubrae*, *H. hirtipalma*, *H. media*, and *H. grandicornis*.)
- GOOCH, J.L., 1990. Spatial genetic patterns in relation to regional history and structure: *Gammarus minus* (Amphipoda) in Appalachian watersheds. ____ *American Midland Naturalist* 124, 93-104.
- GOPALAN, U.K., P.P. MEENAKSHIKUNJAMMA & D.T. VENGAYIL, 1987? Macrobenthos of Vembanad estuary in relation to the deposition of degraded water fern *Salvinia* and other macrophytes. ____ Pp. 410-418 in N.B. Nair (ed.). *Proc. natn Seminar estuar. Manage., Trivandrum* 1987. (Not seen. Amph. +)
- GRIFFITHS, C.L., 1989. The Ingolfiellidae (Crustacea:

- Amphipoda) of southern Africa, with descriptions of two new species. ____ *Cimbebasia* 11, 59-70 (*I. (Trogloleleupia) dracospiritis* n.sp. from Dragon's Breath Cave and *I. (T.) gobabis* n.sp. from Arnhem Cave, both in Namibia. A key to S. African ingolfiellids is provided and new illustrations provided of *I. (T.) eggerti* and *I. (T.) leleupi*).
- GRIZZLE, R.E. & C.A. PENNIMAN, 1991. Effects of organic enrichment on estuarine macrofaunal benthos: a comparison of sediment profile imaging and traditional methods. ____ *Marine Ecology* 74, 249-262 (N. Jersey USA).
- GROSSE, D.J. & G.S. PAULEY, 1989. Species profiles: Life histories and environmental requirements of coastal fishes and invertebrates (Pacific Southwest): Amphipods. ____ Biological Reports US Fish Wildlife Service NTIS. Order No. AD-A 20613115/GAR, 28 pp (Not seen).
- GROSSE, D.J., G.B. PAULEY & D. MORAN, 1986. Species profiles: Life histories and environmental requirements of coastal fishes and invertebrates (Pacific Northwest) Amphipoda. ____ Biological Reports US Fish Wildlife Service NTIS No. PB 87-126918/GAR, 24 pp (Not seen).
- GROSSO, L.E. & H.R. FERNANDEZ, 1985. (A new hyporheic *Bogidiella* (Amphipoda Bogidiellidae) from Tucuman province (Argentina).) ____ *Neotropica* 31, 201-209 (In Spanish, not seen. *Bogidiella* (*Mesochtongidiella* n. subgen.) *tucumanensis* n. sp.)
- GULLIKSEN, B. & O.J. LÖNNE, 1991. Sea ice macrofauna in the Antarctic and the Arctic. ____ *Journal of Marine Systems* 2, 53-61.
- GUSEINOV, M.K., 1989. (Seasonal features in the reproductive ecology of *Pontogammarus maeoticus* in the Caspian Sea). ____ *Ekologiya* (Sverdlovsk) 1989-6, 72-75 (In Russian, not seen).
- HACKER, S.D. & R.S. STENECK, 1990. Habitat architecture and the abundance and body-size-dependent habitat selection of a phytal amphipod. ____ *Ecology* 71, 2269-2285 (*Gammarellus angulosus* in Maine).
- HALCROW, K., 1990. Cuticle deposition and morphological change in epidermal nucleoli of an amphipod *Gammarus oceanicus* Segerstråle. ____ *Journal of Crustacean Biology* 10, 623-626.
- HALL, M.O. & S.S. BELL, 1988. Response of small motile epifauna to complexity of epiphytic algae on seagrass blades. ____ *Journal of Marine Research* 46, 613-630 (Not seen).
- HAMBURGER, K. & P.C. DALL, 1990. The respiration of common benthic invertebrate species from the shallow littoral zone of Lake Esrom, Denmark. ____ *Hydrobiologia* 199, 117-130 (i.a. *Gammarus lacustris*).
- HAMMER, U.T., J.S. SHEARD & J. KRANABETTER, 1990. Distribution and abundance of littoral benthic fauna in Canadian prairie saline lakes. ____ *Hydrobiologia* 197, 173-192. (i.a. *Gammarus lacustris* and *Hyaella azteca*).
- HAMMER, W.M., 1990. Design development in the planktonkreisel, a plankton aquarium for ships at sea. ____ *Journal of Plankton Research* 12, 397-402.
- HANSON, J.M., 1990. Macroinvertebrate size distributions of two contrasting freshwater macrophyte communities. ____ *Freshwater Biology* 24, 481-492.
- HANSON, J.M., P.A. CHAMBERS & E.A. PREPAS, 1990. Selective foraging by the crayfish *Orconectes virilis* and its impact on macroinvertebrates. ____ *Freshwater Biology* 24, 69-80.
- HAPETTE, A.M. & S-A. POULET, 1990. Variation of vitamin C in some common species of marine plankton. ____ *Marine Ecology - Progress Series* 64, 69-79 (i.a. *Phrosina semilunata*, *Platyscelus serratulus* and *Phronima sedentaria*).
- HARGEBY, A., 1990. Effects of pH, humic substances and animal interactions on survival and physiological status of *Asellus aquaticus* L. and *Gammarus pulex* (L.): A field experiment. ____ *Oecologia* 82, 348-354.
- HARRIS, R.R. & D. BAYLISS, 1990. Osmoregulation in *Corophium curvispinum* (Crustacea, Amphipoda), a recent colonizer of freshwater III Evidence for adaptive changes in sodium regulation. ____ *Journal of Comparative Physiology* 160 B, 85-92.
- HARRISON, T.D., 1991. A note on the diet and feeding selectivity of juvenile river bream *Acanthopagrus berda* (Forskål, 1775) in a subtropical mangrove creek. ____ *South African Journal of Zoology* 26, 36-42 (Not seen. Amphipods important prey.)
- HELLUY, S., 1983. Relations hôtes-parasite du trematode *Microphallus papillorobustus* (Rankin, 1940) 2- Modifications du comportement des *Gammarus* hôtes intermédiaires et localisation des métacercaires. ____ *Annales de Parasitologie humaine et comparée* 58, 1-17.
- HELLUY, S., 1983. Un mode de favorisation de la transmission: la manipulation du comportement de l'hôte intermédiaire. ____ *Revue d'Ecologie (Terre et Vie)* 38, 211-222.
- HELLUY, S., 1984. Relations hôtes-parasites du trematode *Microphallus papillorobustus* (Rankin, 1940). 3 - Facteurs impliqués dans les modifications du comportement des *Gammarus* hôtes intermédiaires et tests de predations. ____ *Annales de Parasitologie humaine et comparée* 59, 41-56.
- HELLUY, S. & J. C. HOLMES, 1990. Serotonin, octopamine, and the clinging behavior induced by the parasite *Polymorphus paradoxus* (Acanthocephala) in *Gammarus lacustris* (Crustacea). ____ *Canadian Journal of Zoology* 68, 1214-1220.

- HILL, C., M. FURST & J. HAMMER, 1990. Introduction of the amphipods *Pallasea quadrispinosa* and *Gammaracanthus lacustris* into lakes in northern Sweden. ____ *Annales Zoologici Fennici* 27, 241-244.
- HIRAYAMA, A., 1986. Marine gammaridean Amphipoda (Crustacea) from Hong Kong. I. The family Corophiidae, genus *Corophium*. ____ Pp. 449-485 in B. Morton (ed). The marine flora and fauna of Hong Kong and southern China. Proc. 2. int. mar. Biol. Workshop, Hong Kong Univ. Press, Hong Kong. (Deals with *Corophium kitamori*, *C. lamellatum*, *C. triangulopedarum* n.sp., *C. acherusicum*, *C. hongkongensis* n.sp. (recte: *hongkongense*), *C. crassicorne*, *C. sextonae miospinulosum* n.ssp., *C. mortoni* n.sp., *C. baconi*, *C. tridentium* n.sp. and *C. uenoi*, all from Hong Kong waters. A key to Hong Kong *Corophium* is provided).
- HIRAYAMA, A., 1986. Marine Gammaridean Amphipoda (Crustacea) from Hong Kong II. The family Dexaminidae. ____ Pp. 487-501 in B. Morton (ed.). The marine flora and fauna of Hong Kong and southern China. Proc. 2. int. mar. Biol. Workshop. Hong Kong Univ. Press, Hong Kong (Deals with *Guernea* (*G.*) *sombati* n.sp., *G. (Prinassus) longidactyla* n.sp. and *G. (P.) mackieii* n.sp., all from Hong Kong.)
- HIRAYAMA, A., 1990. Two new caprellidean (n. gen.) and known gammaridean amphipods (Crustacea) collected from a sponge in Noumea, New Caledonia. ____ The Beagle, Records of the Northern Territories Museum of Arts and Science 7, 21-29 (Deals with *Colomastix lunalilo* and *Paradicaprella brucei* n.gen. n.sp. (Caprellidae Proteinae).)
- HIRAYAMA, A., 1990. A new species of the genus *Paramoera* (Crustacea: Amphipoda) from the intertidal zone of Hokkaido, northern Japan. ____ *Zoological Science* 7, 955-959 (*P. hanamurai* n.sp., from Shiriuchi, Hokkaido).
- HIRAYAMA, A., 1990. A new species of the genus *Pontogeneia* (Crustacea, Amphipoda) from Matsuyawaura inlet, Fukushima prefecture, Japan. ____ *Beaufortia* 41, 83-89 (*P. stocki* n.sp.)
- HIROTA, Y. & H. SEMURA, 1990. (Surface swarming of hyperiid amphipod *Themisto japonica* in the southeastern region, Sea of Japan). ____ *Bulletin of the Japan Sea National Fisheries Research Institute* 40, 233-238 (In Japanese, not seen).
- HOLMLUND, M.B., C.H. PETERSON & M.E. HAY, 1990. Does algal morphology affect amphipod susceptibility to fish predation? ____ *Journal of Experimental Marine Biology and Ecology* 139, 65-83.
- HOLOMUZKI, J.R. & J.D. HOYLE, 1990. Effect of predatory fish presence on habitat use and diel movement of the stream amphipod, *Gammarus minus*. ____ *Freshwater Biology* 24, 509-518.
- HOLSINGER, J.R., 1990. *Tuluweckelia cernua*, a new genus and species of stygobiont amphipod crustacean (Hadziidae) from anchihaline caves on the Yucatan peninsula in Mexico. ____ *Beaufortia* 41, 99-107. (*Tuluweckelia cernua* n.sp. is close to *Mayaweckelia*).
- HOLSINGER, R.J., 1991. What can vicariance models tell us about the distributional history of subterranean amphipods? ____ *Hydrobiologia* 223, 43-45.
- HOLTHUIS, L.B. & E.L. BOUSFIELD, 1991. New information on *Pepredo* and *Lepleurus*, two genera of Amphipoda or supposed Amphipoda described by C.S. Rafinesque. ____ *Crustaceana* 61, 217-222 (*Pepredo potamogeti* Raf. is probably a senior synonym of *Gammarus fasciatus*: The name is, however, suppressed by the Int. Comm. on Nomenclature. *Lepleurus rivularis* Raf. is not an amphipod at all, but an aquatic insect larva, maybe Neuroptera. The 1979 establishment of the type of *Gammarus minus* as neotype of *Lepleurus* is therefore unfortunate.)
- HUGHES, R.G. & I.M. HORSFALL, 1990. Differences in the swimming behaviour of the amphipod *Corophium volutator* from different populations. ____ *Journal of Marine Biology Association UK* 70, 143-148.
- HULL, S.C., 1987. Macroalgal mats and species abundance: a field experiment. ____ *Estuarine Coastal and Shelf Science* 25, 519-532.
- HURLEY, D.E., 1990. Charles Chilton, the Phreatoicoidea and other interests of a phreatic pioneer from down under. ____ *Bijdragen tot de Dierkunde* 60, 233-238.
- IKEDA, T., 1991. Assimilated carbon budget for the hyperiid amphipod *Themisto japonica* (Bovallius) from the Japan Sea as influenced by temperature. ____ *Journal of the Oceanographic Society of Japan* 47, 7-16.
- JAUME, D., 1990. (Stygofauna of the small islands S. of Mallorca: Cabrera and Dragonera.) ____ *Endins* 16, 41-46. (In Catalan, not seen. *Bogidiella balearica*, *Pseudoniphargus* 2 undescr. spp., *Salentinella angelieri*).
- JAZDZEWSKI, K. & C. DE BROYER, 1990. Morphology and systematic position of the antarctic and sub-antarctic synopiid *Cardenio paurodactylus*, 1888 (Crustacea, Amphipoda). ____ *Beaufortia* 41, 129-133 (A redescription shows that this genus, hitherto in its own family, is a synopiid).
- JAZDZEWSKI, K. & A. KONOPACKA, 1990. (Interesting locality of the Pontocaspian gammarid *Echinogammarus ischnus* (Stebbing, 1898) (Crustacea, Amphipoda) in Poland.) ____ *Przegląd Zoologii* 34, 101-112 (In Polish, not seen).
- JAZDZEWSKI, K., W. TEODORCZYK, J. SICINSKI & B. KONTEK, 1991. Amphipod crustaceans as an important component of zoobenthos of the shallow Antarctic sublittoral. ____ *Hydrobiologia* 223, 105-117.
- JENSEN, K. Th & L.D. KRISTENSEN, 1990. A field experiment on competition between *Corophium volutator*

- (Pallas) and *Corophium arenarium* Crawford (Crustacea: Amphipoda): Effects on survival, reproduction and recruitment. ____ Journal of Experimental Marine Biology and Ecology 137, 1-24.
- JO, Y. W., 1990. Four new species of sand-burrowing haustoriid Amphipoda (Crustacea) of Korea. ____ Bulletin of the Zoological Museum of Amsterdam 12, 117-144 (Deals with *Eohaustorius stocki* n.sp. (Pusan), *E. longidactylus* n. sp. (prov. Chungnam), *E. spinigerus* n.sp. (prov. Chungnam), and *E. setulosus* n.sp. (Pusan). A key to all *Eohaustorius* is provided).
- JOHNSON, I.T. & M.B. JONES, 1990. Effect of zinc on osmoregulation of *Gammarus duebeni* (Crustacea: Amphipoda) from the estuary and the sewage treatment works at Looe, Cornwall. ____ Ophelia 31, 187-196.
- JOHNSON, R.K. & T. WIEDERHOLM, 1990. Long-term studies of profundal zoomacrofauna in Sweden's great lakes: implications of biotic interactions. ____ Annales Zoologici Fennici 27, 291-295.
- JONES, A.R., A. MURRAY & R.E. MARSH, 1991. Patterns of abundance of exoedicerotid amphipods on sandy beaches near Sydney, Australia. ____ Hydrobiologia 223, 119-126.
- JONES, K.K., C.A. SIMENSTAD, D.L. HIGLEY & D.L. BOTTOM, 1990. Community structure, distribution, and standing stock of benthos, epibenthos, and plankton in the Columbia River estuary. ____ Progress in Oceanography 25, 211-242 (Not seen).
- JONES, M.B. & I. JOHNSON, 1990. Responses of estuarine amphipods to long-term exposure to zinc. ____ Journal of Marine Biology Association UK 70, 673.
- JORDE, D.G. & R.B. OWEN, 1990. Food of Black Ducks, *Anas rubripes*, wintering in marine habitats of Maine. ____ Canadian Field Naturalist 104, 300-302 (*Gammarus oceanicus* important food).
- JORDE, D.G. & R.B. OWEN, 1990. Changes in caloric content of the amphipod *Gammarus oceanicus* along the coast of Maine. ____ Canadian Field Naturalist 104, 303-304.
- JOYEUX, J.-C., J.A. TOMASIN & J.L. BOUCHEREAU, 1991. (Diet of *Gobius niger* Linnè, 1758 (Teleostei, Gobiidae) in the brackish lagoon of Manguio, France.). ____ Annales de Sciences Naturelles de Zoologie et Biologie Animale 12, 57-69 (In French, not seen).
- JUNOY, J. & J.M. VIEITEZ, 1990. Macrozoobenthic community structure in the Ria de Foz, an intertidal estuary (Galicia, NW Spain). ____ Marine Biology 107, 329-339. (Amph. p. 335).
- JUST, J., 1988. Siphonoecetinae (Corophiidae) 6: A survey of phylogeny, distribution, and biology. ____ Crustaceana Suppl. 13, 193-208.
- JUST, J., 1990. *Vicmusia duplocoxa* gen. et sp. nov., (Crustacea; Amphipoda: Gammaridea) of the new family Vicmusiidae from Australia's upper bathyal waters. ____ Invertebrate Taxonomy 3, 925-940 (The new family Vicmusiidae is left as 'Gammaridea, incertae sedis' because of its unique apomorphisms. *Vicmusia diplocoxa* n. gen. n. sp. was collected from 400 m in Bass Strait, Australia).
- JUST, J., 1990. *Coboldus laetifucatus*, new species (Crustacea, Amphipoda, Iphimediidae) from Barbados, West Indies. ____ Steenstrupia 16, 85-91.
- KANE, Th.C. & D.C. CULVER, 1991. The evolution of troglobites: *Gammarus minus* (Amphipoda: Gammaridae) as a case study. ____ Mémoires de Biospéologie 18, 3-14 (Not seen).
- KARAMAN, G.S., 1989. *Hadzia fragilis stocki*, n. ssp. from Italy (Amphipoda, Gammaridea, Hadziidae). ____ Fragmenta balcanica 14, 69-80 (N.E. Italy, With a key to all *Hadzia* in Italy and Yugoslavia).
- KARAMAN, G. S., 1989. One freshwater *Gammarus* species (Gammaridea, fam. Gammaridae) from China. (Contribution to the knowledge of the Amphipoda 189). ____ Poljoprivreda i Sumarstvo 35, 19-36 (Redescription of *Gammarus nekkensis* Uchida.)
- KARAMAN, G.S., 1989. *Bogidiella cypria*, new species of the family Bogidiellidae from Cyprus Island in the Mediterranean Sea. (Contribution to the knowledge of the Amphipoda 190). ____ Montenegrin Academy of Science and Arts, Glasnik Section Natural Sciences 7, 7-23 (An aberrant *Bogidiella*).
- KARAMAN, G.S., 1989. New species of the family Gammaridae from Ohrid Lake basin (sic!) *Gammarus sketi*, n.sp. with emphasis on the subterranean members of genus *Gammarus* Fabr. (Contribution to the knowledge of the Amphipoda 191). ____ Montenegrin Academy of Science and Arts, Glasnik Section Natural Sciences 7, 53-71 (*G. sketi* n. sp. from the Montenegro shore of L. Ohrid.)
- KARAMAN, G.S., 1990. One new species of the family Bogidiellidae from Creta Island, Greece, *Bogidiella (Medigidiella) aquatica* n.sp. Contribution to the knowledge of the Amphipoda 192. ____ Bulletin du Museum d'Histoire Naturelle de Belgrade B 45, 27-39.
- KARAMAN, G.S., 1990. *Bogidiella stocki*, a new species from the Sinai peninsula (Amphipoda, Bogidiellidae) (Contribution to the knowledge of the Amphipoda 193). ____ Beaufortia 41, 141-149.
- KARAMAN, G.S., 1989. On two subterranean gammaridean species from Italy, *Niphargus messanai*, n. sp. and *Ivanella inexpectata* V.T. 1972. Contribution to the knowledge of the Amphipoda 194. ____ Biosistematika 15, 55-70. (*N. messanai* n. sp. from near Firenze, Tuscany, Italy; *Ivanella inexpectata* from same general area).

- KARAMAN, G.S., 1989. The redescription of *Niphargus carniolicus* (sic! recte: *carniolicus*) Sket 1960 (fam. Niphargidae) with remarks to its new taxonomic position (Contribution to the knowledge of the Amphipoda 195). ____ Poljoprivreda i Sumarstvo 35, 13-28. (*Niphargus tauri carniolicus* Sket is redescribed and upgraded to specific rank.)
- KARAMAN, G.S., 1991. A new cavernicolous species of the genus *Niphargus* Schiødte (Gammaridea, Niphargidae) from Yugoslavia, *N. aulicus* n. sp., with notes on *N. buturovici* S. Kar. 1958. Contribution to the knowledge of the Amphipoda 196. ____ Bulletin du Museum d'Histoire Naturelle de Belgrade B 46, 103-119 (*N. aulicus* n.sp. from N. Dalmatia, Kroatia; *N. buturovici* from the same general area is redescribed.)
- KARAMAN, G.S., 1989. New data on genus *Pontoniphargus* Dancau, 1970 (fam. Niphargidae) from Romania (Contribution to the knowledge of the Amphipoda 199). ____ Glasnik Republick og Zavoda zo Zastity Prirode- Prirodnjackog Muzeja Titograd 22, 79-84 (The type and only species *P. racovitzi* is redescribed. The genus remains a valid one).
- KARAMAN, G.S., 1989. Taxonomic investigations on *Niphargus bajuvaricus* Schell. 1932 and its subspecies (Contribution to the knowledge of the Amphipoda 200-Hurrah! WV) ____ Glasnik Republick og Zavoda zo Zastity Prirode- Prirodnjackog Muzeja Titograd 22, 95-111 (The nominate ssp. is redescribed and for the first time recorded from Yugoslavia).
- KARAMAN, G.S. & S. RUFFO, 1989. (Two new taxa of *Niphargus* Schiødte from the Italian Alps (Amphipoda, Niphargidae). ____ Studi Trentini di Scienza Naturale Acta, Biologia 65 (1988), 123-136 (In Italian, not seen. *N. galvagni similis* n.ssp. and *N. strouhali alpinus* n. ssp.)
- KARAMAN, G.S. & S. RUFFO, 1989. *Tyrrhenogammarus sardous*, new genus and species with a description of several new taxa of the genus *Pseudoniphargus* Chevreux, 1901 from Sicily (Amphipoda, Gammaridea). ____ Animalia 16, 161-192 (*T. sardous* n. gen. n. sp. from Sardinia, *Echinogammarus catacumbae* is also transferred to this new genus in the *Echinogammarus*-complex. Also described are *Pseudoniphargus sodalis* n. sp. from Trapani, Sicilia, *P. inconditus* n. sp. from Messina, Sicilia, and *P. africanus italicus* n. ssp. from Palermo, Sicilia)
- KARAMAN, G.S. & B. SKET, 1990. *Bogidiella sinica* sp.n. (Crustacea: Amphipoda) from southern China. ____ Biologiya Vestnik, Ljubljana 38, 35-48 (*B. sinica* from cave in Guengxi, Zhuang A.R., S. China).
- KATAKURA, Y., 1989. Endocrine and genetic control of sex differentiation in the Malacostracan Crustacea. ____ Invertebrate Reproduction and Development 16, 177-182 (Not seen).
- KELLY, J.R., S.N. LEVINE, L.A. BUTTEL, K.A. CARR, D.T. RUDNICK & R.D. MORTON, 1990. The effects of tributyltin within a *Thalassia* seagrass ecosystem. ____ Estuaries 13, 301-310 (i.a. *Cymadusa compta*).
- KELLY, J.R., D.T. RUDNICK, R.D. MORTON, L.A. BUTTEL, S.N. LEVINE & K.A. CARR, 1990. Tributyltin and invertebrates of a seagrass ecosystem: exposure and response of different species. ____ Marine Environmental Research 29, 245-276.
- KEVREKIDIS, T., A.K. KOKKINAKIS & A. KOUKOURAS, 1990. Some aspects of the biology and ecology of *Knipowitschia caucasica* (Teleostei: Gobiidae) in the Evros delta, North Aegean Sea. ____ Helgoländer Meeresuntersuchungen 44, 173-188 (Benthic Amph. important prey).
- KEVREKIDIS, T. & A. KOUKOURAS, 1989. Seasonal variation of abundance of *Gammarus aequicauda* (Crustacea Amphipoda) in the Evros Delta (N.E. Greece). ____ Israel Journal of Zoology 36, 113-123.
- KIM, Ch. B., 1991. A systematic study of marine gammaridean Amphipoda from Korea. ____ Ph. D. Thesis, Seoul natn. Univ., Seoul, I-III, 1-44, 85 figs. (Not seen. 79 spp, of which 14 are n. spp, formally described elsewhere.)
- KIM, C.B. & W.KIM, 1989. A new species of the genus *Ceradocus* (Crustacea, Amphipoda, Melitidae) from Korea. ____ Korean Journal of Systematic Zoology 5, 173-181 (*C. (Denticeradocus) koreanus* n.sp. from Pusan, S. Korea).
- KIM, C.B. & W. KIM, 1990. A new species of the genus *Liljeborgia* (Crustacea, Amphipoda, Liljeborgiidae) from Korea. ____ Korean Journal of Zoology 33, 396-401 (Not seen. *L. hwanghaensis* n.sp. from Yellow Sea.)
- KIM, C.B. & W. KIM, 1991. *Urothoe convexa*, a new gammarid species from Korea (Amphipoda: Urothoidae) ____ Korean Journal of Zoology 34. (*U. convexa* n. sp. from Channam prov., S. Korea)
- KIM, W. & C.B. KIM, 1991. The marine amphipod crustaceans of Ulreung Island, Korea: Part 1. ____ Korean Journal of Zoology 34, 232-252 (Ulreung Isl. is situated E. of central S. Korea, at c. 37°30'N, 130°50'E. This first part deals with *Sunamphitoe sineplumosa* n.sp., *Gammaropsis japonicus*, *Podocerus ulreungensis* n. sp., *P. hoonsooi* n.sp., *Erichthonius pugnax* and *Ventojassa dentipalma* n. sp.)
- KIM, W. & C.B. KIM, 1991. The marine amphipod crustaceans of Ulreung Island, Korea: part II. ____ Korean Journal of Systematic Zoology 7, 13-38 (Deals with *Paranamixis denticulus* n. sp., *Colomastix prionotos* n. sp., *Ceinina japonica*, *Eusiroides monoculoides japonicus*, *Allorchestes angusta*, *Hyale punctata*, *H. rubra* and *H. bisaeta* n. sp., all from Ulreung Island.)
- KIM, W. & C.B. KIM, 1991. The marine amphipod crustaceans of Ulreung Island, Korea: part 3. ____ Korean Journal of Zoology 34, 323-337 (Deals with *Leucothoe nagatai*, *L. spinicarpa*, *Elasmopus koreanus*

- n. sp., *Maera brevispina* n. sp. *Parapleustes derzhavini* and *Stenothoe valida*, all from Ulreung Island.)
- KLAGES, M. & J. GUTT, 1990. Comparative studies on the feeding behaviour of high Antarctic amphipods (Crustacea) in laboratory. ____ *Polar Biology* 11, 73-79 (*Epimeria robusta*, *Gnathiphimedia mandibularis* and *Paraceradocus gibber*).
- KOCH, H., 1990. Aspects of the population biology of *Traskorchestia traskiana* (Stimpson, 1857) (Amphipoda, Talitridae) in the Pacific Northwest, USA. ____ *Crustaceana* 59, 35-52.
- KOCH, K.D., 1989. Ernährungsökologische Untersuchungen an *Gammarus pulex* (L.) und *Gammarus fossarum* Koch, 1835 (Crustacea, Amphipoda) in einem Wiesenbach und einem Waldbach. ____ Ph.D. Thesis, Univ. Giessen, BRD, 194 pp.
- KÖHN, J. 1990. The recent distribution of glacial relict Malacostraca in the western and southern Baltic. ____ *Annales Zoologici Fennici* 27, 231-235 (*Pontoporeia affinis* and *P. femorata*)
- KÖHN, J., M. JASCHHOF & M. v. WEBER, 1991. Das Salzhaft. Notwendigkeit und Möglichkeit der Schaffung eines Meeresschutzgebietes. ____ *Meer und Museum* 7, 8-21.
- KÖHN, J. & M. SAMMOUR, 1990. Lebensgeschichte und Produktion von *Bathyporeia pilosa* Lindström, 1855 (Amphipoda, Haustoriidae) in der westlichen Ostsee. ____ *Zoologischer Anzeiger* 224, 165-174.
- KÖHN, J. & A. WATERSTRAAT, 1990. Recent distribution of glacial relict Malacostraca in the lakes of Mecklenburg. ____ *Annales Zoologici Fennici* 27, 237-240 (*Pallasea* and *Pontoporeia affinis*)
- KONOPACKA, A., 1990. Life history of *Gammarus varsoviensis* Jazdzewski, 1975 from Kampinoski National Park, (Central Poland). ____ *Zoologia Poloniae* 35 (1988), 165-177.
- KORENTZ, D., F.C. McEUEEN, M.C. LAND & W.C. DUNLAP, 1991. Survey of mycosporine-like amino acid compounds in Antarctic marine organisms, potential protection from ultraviolet exposure. ____ *Marine Biology* 108, 157-166 (i.a. 7 amphipod spp.)
- KORTELAINEN, I., 1990. *Gammarus lacustris* - herbivore or predator? ____ *Reports from the Kevo Subarctic Research Station* 21, 31-34 (Not an exclusive herbivore).
- KOVAL'CHUK, N.E., 1990. (The microzoobenthos and benthiczooplankton of the Dniester (Ukrainian SSR, USSR) water preserve during its formation.) ____ *Gidrobiologicheskyy Zhurnal* 26, 22-27 (In Russian, not seen).
- KRÖNCKE, I., 1991. The macrofauna distribution on the Dogger Bank in April/May 1985-87 (with an annex of unpublished data from Birkett samples in April/May 1952-54.) ____ *Berichte biologische Anstalt Helgoland* 8, 1-137.
- KRYUCHKOV, V.I., R. Yu. KASIMOV & R. Yu. ABOSOV, 1990. (Experimental study of the effect of UPN-1 on the vital activity of hydrobionts.) ____ *Izvestia Akademyya Nauk Azerbajdzhani SSR, Ser. Biol.* 6 (1989), 96-104 (In Russian, not seen. I.a. *Gammarus maeoticus*.)
- KULKINA, L.V., 1990. (Progenetic cestode *Cyathocephalus* in *Gammarus hirsutus* from waters of western Tien-Shan.) ____ *Parazitologiya (Leningrad)* 24, 232-235 (In Russian, not seen).
- KURIS, A.M., S.F. BLAU, A.J. PAUL, J.O. SHIELOS & D.E. WICKHAM, 1991. Infestation by brood symbionts and their impact on brood mortality of the Red King Crab, *Paralithodes camtschatica*, in Alaska. Geographic and temporal variation. ____ *Canadian Journal of Fisheries and Aquatic Sciences* 48, 559-568 (i.a. *Ischyrocerus* sp.)
- KUSSAKIN, O.G., 1990. Biogeography and isopod crustaceans in the Boreal Pacific. ____ *Bulletin of Marine Science* 46, 620-639.
- LALITHA, M., K. SHYAMASUNDARI & K.H. RAO, 1989/90. ____ Effects of salinity and temperature on the development of eggs in amphipod *Talorchestia martensii* (Weber) (Crustacea: Amphipoda). ____ *Oebalia* 16 N.S., 117-127.
- LALITHA, M., K. SHYAMASUNDARI & K.H. RAO, 1990. Studies on the male reproductive system of the amphipod *Orchestia platensis* Kröyer (Crustacea: Amphipoda). ____ *Folia Morphologia (Praha)* 38, 77-82.
- LANA, P. da Cunha & C. GUISS, 1991. Influence of *Spartina alterniflora* on structure and temporal variability of macrobenthonic associations in a tidal flat of Paranagua Bay (southeastern Brazil). ____ *Marine Ecology - Progress Series* 73, 231-244.
- LANCROFT, Th. M., Th. L. HOPKINS, J.J. TORRES & J. DONNELLY, 1991. Oceanic micronektonic/macrozooplanktonic community structure and feeding in ice covered Antarctic waters during the winter (AMERIEZ 1988). ____ *Polar Biology* 11, 157-167 (i.c. *Cyllopus*, *Cyphocaris*, *Parandania*, *Themisto* and *Metalanceola*).
- LANDRUM, P.F. & C.R. STUBBLEFIELD, 1991. Role of respiration on the accumulation of organic xenobiotics by the amphipod, *Diporeia* sp. ____ *Environmental Toxicology and Chemistry* 10, 1019-1028.
- LARSEN, P.F. & L.F. DOGGETT, 1990. Sand beach macrofauna of the Gulf of Maine with inference on the role of oceanic fronts in determining community composition. ____ *Journal of Coastal Research* 6, 913-926 (Amph. p. 918).

- LASTRO, M., J. MORA, A. SANCHEZ & J. PALACIO, 1990. (Infralittoral benthonic communities of the Bahía de Santander (N. Spain).) ____ Cahiers de Biologie marine 31, 25-46 (In Spanish. Amph. p. 45).
- LAYTON, R.J. & J.R. VOSHELL, 1991. Colonization of new experimental ponds by benthic macroinvertebrates. ____ Environmental Entomology 20, 110-117 (Not seen).
- LEE, K.S., 1988. Fauna of Caprellidae (Amphipoda) of Cheju Island and its adjacent waters, Korea. ____ Korean Journal of Systematic Zoology, special Issue 2, 97-106 (15 spp, of which *Caprella kominatoensis*, *Protomima imitatrix*, *Pseudoproto fallax*, *Paraprotella prima* and *Protella gracilis* are new for Korea)
- LEONARDSSON, K., 1991. Effects of cannibalism and alternative prey on population dynamics of *Saduria entomon* (Isopoda. ____ Ecology 72, 1273-1285 (i.a. *Pontoporeia affinis*)
- LEVINGS, C.D., K. CONLIN & B. RAYMOND, 1991. Intertidal habitats used by juvenile Chinook salmon (*Oncorhynchus tshawytscha*) rearing in the North Arm of the Fraser river estuary. ____ Marine Pollution Bulletin 22, 20-26 (*Corophium* spp)
- LEWIS, J.B. & P.V.R. SNELGROVE, 1990. Corallum morphology and composition of crustacean crypto fauna of the hermatypic coral *Madracis mirabilis* ____ Marine Biology 106, 267-272.
- LEWIS, M.A., 1991. Chronic and sublethal toxicities of surfactants to aquatic animals: A review and risk assessment. ____ Water Research 25, 101-114 (Not seen)
- LINDEMAN, D., 1990. New terrestrial amphipods (Crustacea: Amphipoda: Talitridae) from Mexico and Central America. ____ Canadian Journal of Zoology 68, 2323-2337 (Deals with *Caribotroides (C.) tuxtlenis* n.sp. (Vera Cruz, Mexico), *C. (C.) newtoni* n.sp. (Oaxaca, Mex.), *C. (Mexitroides) n.subgen. pecki* n.sp. (Oaxaca, Mex.), *C. (M.) chiapensis* n.sp. (Chiapas, Mex.) and *Cerrorchestia hyloraina* n. gen. n. sp. (Monteverde, Costa Rica). A key to forest leaf litter landhoppers of Mexico and C. America is also provided.)
- LINDEMAN, D., 1991. Phylogeny and zoogeography of the New World terrestrial amphipods (landhoppers) (Crustacea: Amphipoda; Talitridae). ____ Canadian Journal of Zoology 69, 1104-1116 (A most interesting phenetic and cladistic analysis, with discussion of zoogeography and physiological constraints).
- LINDEMAN, D., 1991. Natural history of the terrestrial amphipod *Cerrorchestia hyloraina* Lindeman (Crustacea: Amphipoda; Talitridae) in a Costa Rican cloud forest. ____ Journal of Natural History 25, 623-638.
- LINDSTRÖM, M., 1991. Factors affecting the horizontal migration of the amphipod *Pontoporeia affinis* Lindström: 1. Recording method and response to water currents. ____ Journal of Experimental Marine Biology and Ecology 150, 149-162.
- LINDSTRÖM, M. & W. FORTELIUS, 1990. Some factors affecting the horizontal migration of *Pontoporeia affinis* (Crustacea, Amphipoda) in laboratory conditions. ____ Annales Zoologici Fennici 27, 309-312.
- LOPEZ, G. & R. ELMGREN, 1990. Feeding depths and organic absorption by *Pontoporeia femorata* and *Pontoporeia affinis* ____ Annales Zoologici Fennici 27, 305 (Abstract only).
- LORENTI, M. & M.B. SCIPIONE, 1990. Relationships between trophic structure and diel migrations of isopods and amphipods in a *Posidonia oceanica* bed of the island of Ischia (Gulf of Naples, Italy). ____ Rapport du Commission International de la Mer Méditerranée 32, 17-18.
- LOWRY, J.K. & H.E. STODDART, 1990. The Wandinidae, a new Indo-Pacific family of Lysianassid Amphipoda (Crustacea). ____ Records of the Australian Museum 42 (1988), 159-171. (This new family in the Lysianassoidea is based on the genera *Wandin* and *Pseudocyphocaris*. *Wandin griffini* n.gen. n.sp. (Great Barrier Reef), *Pseudocyphocaris gosema* n.sp. (Madang, Papua N. Guinea) and *P. lobata* n. sp. (also Madang) are described and illustrated. The wandinids are probably associates of tunicates.)
- LYONS, J. & A.A. MYERS, 1990. Amphipoda Gammaridea from coral rubble in the Gulf of Aqaba, Red Sea: Families Acanthonotozomatidae, Ampeliscidae, Ampithoidae, Anamixidae, Aoridae and Colomastigidae. ____ Journal of Natural History 24, 1197-1225 (Deals with *Iphimedia? orchestimana*, *Ampelisca tulearensis*, *Ampithoe kava*, *A. ramondi*, *Cymadusa filosa*, *Paranamixis* sp., *Bemlos podocerooides* (transferred from *Lembos*), *Globosolembos indicus*, *Lembooides pterischius* n.sp. (Aqaba, Jordan), *L. angusticarpa* (transf. from *Xenocheira*), *Colomastix plumosa*, *C. laminosa* n.sp. (Aqaba) and *C. lunililo*.)
- LYONS, J. & A.A. MYERS, 1991. Amphipoda Gammaridea from coral rubble in the Gulf of Aqaba, Red Sea: families Dexaminidae, Eusiridae, Isaeidae, Ischyroceridae, Leucothoidae, Liljeborgiidae, and Lysianassidae. ____ Journal of Natural History 25, 597-621 (Deals with *Dexaminella aegyptica*, *Tethygeneia? pacifica*, *Photis lamellifera*, *Gammaropsis incideris* n.sp., *Jassa herdmanni*, *Leucothoe safiae* n.sp., *Liljeborgia petrae* n.sp., *Lysianassa kerakae* n.sp., *Amaryllis? macrophthalma*, and *Aristias symbioticus*).
- MALICKY, H., 1990. Feeding tests with caddis larvae (Insecta: Trichoptera) and amphipods (Crustacea: Amphipoda) on *Platanus orientalis* (Platanaceae) and other leaf litter. ____ Hydrobiologia 206, 163-173.
- MARINOV, T.M. & S.M. STOJKOV, 1990. (Seasonal studies on the zoobenthos in the Bulgarian Black Sea shelf.) ____ Okeanologiya, Sofia 19, 49-62 (In Bulgarian. Amph. p.52).

- MARSDEN, I., 1989. The assessment of seasonal adaptation in the beach hopper *Talorchestia quoyana* (Milne Edwards) ____ *Journal of Experimental Marine Biology and Ecology* 128, 203-218.
- MARSDEN, I.D., 1991. A comparison of water loss and gill area in two superlittoral amphipods from New Zealand. ____ *Hydrobiologia* 223, 149-158 (*Talorchestia quoyana* and *Transorchestia chiliensis*.)
- MARSDEN, I.D., 1991. Kelp-sandhopper interactions on a sand beach in New Zealand. 1. Drift composition and distribution. ____ *Journal of Experimental Marine Biology and Ecology* 152, 61-74
- MARSDEN, I.D., 1991. Kelp-sandhopper interactions on a sand beach in New Zealand. 2. Population dynamics of *Talorchestia quoyana* (Milne-Edwards). ____ *Journal of Experimental Marine Biology and Ecology* 152, 75-90.
- MARSH, A.G. & K.R. TENORE, 1990. The role of nutrition in regulating the population dynamics of opportunistic, surface deposit feeders in a mesohaline community. ____ *Limnology and Oceanography* 35, 710-724 (i.a. *Leptocheirus plumulosus*)
- MASON, W.T., 1991. A survey of benthic invertebrates in the Suwannee River, Florida. ____ *Environmental Monitoring and Assessment* 16, 163-188.
- MATEUS, A. & E. MATEUS, 1990. Etude d'une collection d'amphipodes, spécialement du sud-ouest asiatique, du Museum d'Histoire Naturelle de Vienne (Autriche). ____ *Annales des naturhistorischer Museum, Wien* 91 B, 273-33 (Descriptions of *Gammarus pageti* n. sp. (E. Turkey), *G. pretzmanni* n.sp. (Iran), *G. odettae* n.sp. (C. Turkey), *G. miae* n.sp. (Iran), *G. plumipes* n. sp. (Iran), *G. dorsosetosus* n.sp. (SE Turkey), *G. inopinatus* n.sp. (near Istanbul, Turkey, brackish), *Dikerogammarus gruberi* n.sp. (SE Turkey), *Synurella lepida* n.sp. (Turkey), and *Hyatella squamosa* n.sp. (Guadeloupe, W. Indies).
- MATEUS, A & E. MATEUS, 1991. Campagne de la 'Calypso' aux Iles de Cap Vert pendant l'année 1959. Amphipodes récoltes à bord de la 'Calypso'. ____ *Anais Facultad de Ciencias Porto* 67, 37-94 (Thirty-four spp of which the following are treated in more detail: *Maera lacertosa* n.sp., *M. stocki* n.sp., *Amphithoe fastidiosus* n.sp. (recte: *fastidiosa*), and *Caprella concinna* n.sp.. All new spp stem for Sao Tiago, Cap Verde).
- MATEUS, A. & E. MATEUS, 1991. A propos d'*Echinogammarus obtusidens* Pinkster & Stock, 1972 (Amphipoda, Gammaridae). ____ *Anais Facultad de Ciencias Porto* 67, 197-203. (New records from southern Spain.)
- MATHIEU, J. & K. ESSAFI-CHERGUL, 1990. (The interstitial aquatic population of the interface between karst and alluvial plain. 1. A case of feeding in essentially karstic water.) ____ *Mémoires de Biospéologie* 17, 113-122 (In French, not seen).
- MATTSON, S., 1990. Food and feeding habits of fish species over a soft sublittoral bottom in the Northeast Atlantic. 1. Cod (*Gadus morhua* L.) (Gadidae). ____ *Sarsia* 75, 247-260 (Amph. p. 253).
- MATTSON, S., 1990. Food and feeding habits of fish species over a soft sublittoral bottom in the northeast Atlantic 2. Poor-Cod (*Trisopterus minutus* (L.)) (Gadidae). ____ *Sarsia* 75, 261-267 (Amph. p. 262).
- MAZE, R.A., A.J. LABORDA & E. LUIS, 1990. (Intertidal macrofauna of sandy substrates in the Ria de El Barquero (Lugo, NW Spain). 2. Structure of the community zonation.) ____ *Cahiers de Biologie marine* 31, 47-64 (In Spanish)
- MAZZELLA, L., M.B. SCIPIONE & M.C. BUIA, 1989. Spatio-temporal distribution of algal and animal communities in a *Posidonia oceanica* meadow. ____ *PSZN* 1. *Marine Ecology* 10, 107-129.
- McCAHON, C.P., S.J. MAUND & M.J. POULTON, 1991. The effect of the acanthocephalan parasite (*Pomphorhynchus laevis*) on the drift of its intermediate host (*Gammarus pulex*). ____ *Freshwater Biology* 25, 507-513.
- McCAHON, C.P. & M.J. POULTON, 1991. Lethal and sublethal effects of acid, aluminium and lime on *Gammarus pulex* during repeated simulated episodes in a Welsh stream. ____ *Freshwater Biology* 25, 169-178.
- McCLELLAND, G., 1990. Larval sealworm (*Pseudoterranova decipiens*) infections in benthic macrofauna. ____ *Canadian Bulletin of Fisheries and Aquatic Sciences* 222, 47-65 (Found in 4 of 2500 amphipods in N-Scotia).
- McCLINTOCK, J.B. & J. JANSSEN, 1990. Pteropod obduction as a chemical defence in a pelagic antarctic amphipod. ____ *Nature, Ldn.* 346, 462-465 (*Hyperiella dilatata* carry around *Clione limacina*; affords some protection against fish-predation).
- McDONALD, M.E., L.B. CROWSER & S.B. BRANDT, 1990. Changes in *Mysis* and *Pontoporeia* populations in southeastern Lake Michigan (USA): A response to shifts in the fish community. ____ *Limnology and Oceanography* 35, 220-227.
- McFALL-NGAI, M.J., 1990. Crypsis in the pelagic environment. ____ *American Zoologist* 30, 175-188 (Not seen).
- McQUAID, C.D. & K. M. DOWER, 1990. Enhancement of habitat heterogeneity and species richness on rocky shores inundated by sands. ____ *Oecologia* 84, 142-144 (Not seen. Amph?)
- MENENDEZ, M. & F.A. COMIN, 1990. Consumption of macrophytes by invertebrates in Tancada lagoon (NE Spain). ____ *Scientia Marina* 54, 139-144 (i.a. *Gammarus aequicauda*)

- MESSOULI, M., C. BOUTIN & N. COINEAU, 1991. Phylogénie et biogéographie évolutive d'un groupe de Metacrangonyctidae, crustacés amphipodes stygobies du Maroc. 1. - Les espèces du groupe *panousei*. ____ Mémoires de Biospéologie 18, 247-262 (Deals with *M. panousei*, *M. delamarei* n.sp. (Oued Dades, Haut-Atlas), *M. goulmimensis* n.sp. (Oued Gheris, Goulmima), *M. ruffoi* n.sp. (Azib Asseln) and *M. aroudanensis* n.sp. (Oued Ahansal, Haut Atlas)
- METTAM, C., 1989. The life cycle of *Bathyporeia pilosa* Lindström (Amphipoda) in a stressful, low salinity environment. ____ Scientia Marina 53, 543-550.
- MEYERING, M.P.D., 1991. Lack of oxygen and low pH as limiting factors for *Gammarus* in Hessian brooks and rivers. ____ Hydrobiologia 223, 159-169.
- MEYRAN, J.C., F. GRAF & J. FOURNIE, 1987. Carbonic anhydrase activity in a calcium - mobilizing epithelium of the crustacean *Orchestia cavimana* during moulting. ____ Histochemistry 87, 419-429.
- MEYRAN, J.C., G. MOREL, M.R. HAUSSLER & G. BOIVIN, 1991. Immunocytological localization of 1-2-5-dihydroxyvitamin 1) 3-like molecules and their receptors in a calcium-transporting epithelium of a crustacean. ____ Cell Tissue Research 263, 345-352 (*Orchestia*)
- MICHAUT, P. & F. GRAF, 1990., (Dynamics of the posterior caeca epithelium of *Orchestia cavimana* (Crustacea, Amphipoda). 2. Cellular renewal.) ____ Annales de Sciences Naturelles Zoologie et Biologie Animale 11, 17-28 (In French, not seen).
- MIRZAEV, G.S., 1990. (Benthic fauna in Bol'shoi Kyzylagachskii Zaliv of the Caspian Sea). ____ Izv. Akad. Nauk Az. SSR, Ser. Biol. 5 (1989), 68-71 (In Russian, not seen. 'Ten % of fauna is amphipods')
- MIRZAEV, G.S., 1990. (Seasonal changes in zoobenthos in Bol'shoi Kyzylagachskii Zaliv of the Caspian Sea) ____ Izv. Akad. Nauk Az. SSR, Ser. Biol. 6 (1989), 76-79 (In Russian, not seen).
- MOORE, P.G., P-S. RAINBOW & E. HAYES, 1991. The beach-hopper *Orchestia gammarellus* (Crustacea: Amphipoda) as a biomonitor for copper and zinc: North Sea trials. ____ Science of the Total Environment 106, 221-238.
- MORINO, H. & A-Y. DAI, 1990. Three amphipod species (Crustacea) from East China. ____ Publications of the Itako Hydrobiological Station 4, 7-27 (Deals with *Grandidierella taihuensis* n.sp. (= *G. magna* s. Tattersall 1922 - Taihu, Wuxi), *Monoculodes limnophilus* and *Platorchestia japonica*).
- MÜLLER, H-G., 1990. New species and records of coral reef inhabiting Caprellidae from Bora Bora and Moorea, Society Islands (Crustacea: Amphipoda). ____ Revue Suisse de Zoologie 97, 822-842 (Deals with *Caprellina bispinosa* n.sp., *Fallotritella polynesica* n.sp. and *Metaprotella sandalensis*, all 3 from Bora Bora reef)
- MUSKO, I., W. MEINEL, R. KRAUSE & M. BARLOS, 1990. The impact of cadmium and different pH on the amphipod *Gammarus fossarum* Koch (Crustacea: Amphipoda). ____ Comparative Biochemistry and Physiology 96 C, 11-16.
- MYERS, A.A., 1990. Amphipoda from the South Pacific: the Cook Islands. ____ Records of the Australian Museum 42, 149-157 (Deals with *Colomastix murivai* n.sp. (Rarotonga), *Perioculodes aequimanus*, *Mallacoota nananui*, *Maera serrata*, and *Podocerus t. talegus*).
- MYERS, A.A., 1991. How did Hawaii accumulate its biota? A test from the Amphipoda. ____ Global Ecology and Biogeography Letters 1, 24-29.
- MYERS, A.A. & D. McGRATH, 1991. The *Ampelisca diadema* group of species (Amphipoda: Gammaridea) in British and Irish waters. ____ Journal of Marine Biology Association UK 71, 265-279 (Deals, with keys, with *A. tenuicornis*, *A. diadema*, *A. spinipes* & *A. armoricana*, the last one not yet found in Britain.)
- NAIR, K.K.C.,? *Metalycaea globosa* Stephensen, a true valid species of Oxycephalidae Bate (Amphipoda, Hyperidea). ____ Proc. 77. Ind. Sc. Congr., Part IV Late Abstracts, 74 (Abstract only).
- NALEPA, T.F., 1991. Status and trends of the Lake Ontario macrobenthos. ____ Canadian Journal of Fisheries and Aquatic Sciences 48, 1558-1567.
- NELSON, W.G., 1990. Prospects for development of an index of biotic integrity for evaluating habitat degradation in coastal systems. ____ Chemistry and Ecology 4, 197-210.
- NEWMAN, R.M., 1990. Effects of shredding amphipod density on watercress *Nasturtium officinale* breakdown. ____ Holartic Ecology 13, 293-299 (*Gammarus pseudolimnaeus*)
- NG, P.K.L., 1991. How conservative should nomenclature be? Comments on the principle of priority. ____ Bulletin of Zoological Nomenclature 48, 87-91.
- NICKELL, T.D. & P.G. MOORE. The behavioural ecology of epibenthic scavenging invertebrates in the Clyde Sea area: field sampling using baited traps. ____ Cahiers de Biologie marine 32, 353-370 (i.a. *Scopelochirus hopei*).
- NOTENBOOM, J., 1991. Marine regressions and the evolution of groundwater dwelling amphipoda (Crustacea). ____ Journal of Biogeography 18, 437-454. (An important paper).
- OLAFSSON, E. & R. ELMGREN, 1991. Effects of biological disturbance by benthic amphipods *Monoporeia affinis* on meiobenthic community structure: a laboratory approach. ____ Marine Ecology - Progress Series 74, 99-107.

- ONATE, F. Corcobado, 1991. Food and daily ration of the rock sole *Lepidopsetta bilineata* (Pleuronectidae) in the eastern Bering Sea. ____ Marine Biology 108, 185-191 (Gammaridea important prey).
- OPALINSKI, K.W. & J.M. WESLAWSKI, 1990. Ecology, metabolic rate and metabolic adaptations in Spitsbergen amphipods. ____ Polish Archives of Hydrobiology 36 (1989), 333-350.
- ORTIZ, M., 1990. (*Platyscelus ovoides* (Amphipoda: Hyperiididae) in the stomach contents of the Bonito (*Katsuwonus pelagicus*) in Cuban waters.) ____ Revista de Investigaciones Marinas 11, 174-175 (In Spanish, not seen)
- ORTIZ, M., 1990. (A new amphipod species (Amphipoda, Crustacea) from Mozambique waters). ____ Revista de Investigaciones Marinas 11, 105-109 (In Spanish, not seen. *Gammaropsis modianeii* n.sp.)
- ORTIZ, M., 1991. Amphipod Crustacea II Family Bateidae. ____ Memoirs of the Hourglass Cruises 8 (1), 1-31 (Deals with *Batea catharinensis*, *Carinobatea carinata*, *C. cuspidata* and two new spp.: *Carinobatea bousfieldi* and *C. campi*. Also *Batea* cf. *transversa* from Cuba is described and illustrated.)
- ORTIZ, M. & R. LALANA, 1989. (A new species of amphipod of the *Eriopisa* complex (Amphipoda, Gammaridea), in Cuban waters). ____ Revista de Investigaciones Marinas 10 (3), 233-237 (In Spanish, not seen. *Victoriopisa* n.sp.)
- ORTIZ, M. & J. NAZABAL, 1988. (A new amphipod species of the genus *Lembos* (Crustacea, Amphipoda) from Cuban waters). ____ Revista de Investigaciones Marinas 9, 29-35 (*L. barnardi* n. sp.)
- PALERUD, R. & W. VADER, 1991. Marine Amphipoda Gammaridea in North-East Atlantic and Norwegian Arctic. ____ Tromsø Naturvitenskapelig Serie 68, 1-97. (A check-list with references to descriptions and illustrations of all described species from the area from Bretagne to Novaya Zemlya. Available from WV.)
- PAPI, F., 1991. Remembering Leo Pardi. ____ Ethology, Ecology and Evolution 3, 167-170 (Leo Pardi died Dec. 1990)
- PATERNELLO, T., P.M. BISOL & B. BATTAGLIA, 1989. Studies on differential fitness of PGI genotypes with regard to temperature in *Gammarus insensibilis* (Crustacea: Amphipoda) ____ Marine Biology 102, 355-359.
- PATERNELLO, T., P.M. BISOL, V. VAROTTO, V. FUSER & B. BATTAGLIA, 1990. A study of enzyme polymorphism in the Antarctic amphipod *Paramoera walkeri*. ____ Polar Biology 10, 495-498.
- PAYEN, G.G., 1989. Helen Charniaux- Cotton (1918-1986). Obituary. ____ Invertebrate Reproduction and Development 16, 1-2.
- PERCY, J., 1989. Piranhas of the frozen seas. ____ Nature Canada 8, 9 (On scavenging amphipods)
- PINKSTER, S. & D. PLATVOET, 1990. Some remarks on the genus *Echinogammarus* Stebbing, 1899 with description of a new species *E. valedictus* from Algeria (Crustacea, Amphipoda). ____ Bijdragen tot de Dierkunde 60, 263-269.
- PLOTNIKOV, I.S., N.V. ALADIN & A.A. FILIPPOV, 1991. (The past and present of the Aral Sea fauna). ____ Zoologicheskii Zhurnal 70, 5-15 (In Russian)
- PÖCKL, M., 1988. Bestimmungsschlüssel für Peracarida der österreichischen Donau (Crustacea, Malacostraca). ____ Wasser und Abwasser 32, 89-110.
- PÖCKL, M. & U.H. HUMPECH, 1990. Intra- and inter-specific variations in egg survival and brood development time for Austrian populations of *Gammarus fossarum* and *G. roeseli* (Crustacea, Amphipoda). ____ Freshwater Biology 23, 441-455.
- PÖCKL, M. & W. TIMISCHL, 1990. Comparative study of mathematical models for the relationship between water temperature and brood development time of *Gammarus fossarum* and *G. roeseli* (Crustacea: Amphipoda). ____ Freshwater Biology 23, 433-440.
- PONOMAREVA, E.E., 1989. Feeding of the amphipod *Gammarus oceanicus* on the littoral of the Barents Sea. ____ Soviet Journal of Marine Biology 15, 261-265.
- POSEY, M.H., B.R. DUMBAULD & D.A. ARMSTRONG, 1991. Effects of a burrowing mud shrimp, *Upogebia pugettensis* (Dana), on abundance of macro-infauna. ____ Journal of Experimental Marine Biology and Ecology 148, 283-294 (i.a. *Corophium acherusicum*)
- POSTON, T.M., D.C. KLOPFER & M.A. SIMMONS, 1990. Short-term bioconcentration studies of Neptunium in freshwater lakes. ____ Health Phys. 59, 869-878 (Not seen, i.a. *Gammarus* sp.)
- POULTON, M. & D. PASCOE, 1990. Disruption of precopula in *Gammarus pulex* (L.): Development of a behavioral bioassay for evaluating pollutant and parasite induced stress. ____ Chemosphere 20, 403-416.
- POWELL, R. & P.G. MOORE, 1991. The breeding cycles of females of seven species of amphipod (Crustacea) from the Clyde Sea area. ____ Journal of Natural History 25, 435-479. (Deals with *Ampelisca macrocephala*, *Bathyporeia pilosa*, *Corophium bonnellii*, *Echinogammarus pirloti*, *Gammaropsis nitida*, *Lembos websteri* and *Stegocephaloides christianiensis*.)
- PRETUS, J. LI., 1991. (A taxonomic, biogeographic and ecologic study of the epigeal and hypogeal crustaceans of the Balears (Branchiopoda, Copepoda, Mystacacarina and Malacostraca). ____ Ph. D. Thesis, Univ. of Barcelona, 2 vols, 513 pp. (In Spanish, not seen. Treats all amphipods known from Balearic islands, Spain. Many

new figures and locality records.)

PRETUS, J. LI. & F. SABATER, 1990. A new *Haplogynglymus* (Crustacea: Amphipoda) coexisting with *Niphargus* sp. in a spring south of Pyrenées (Catalonia, NE Spain). ____ *Stygologia* 5, 143-152 (*H. bergae* n. sp.. The *Niphargus* probably is also a new species).

PRETUS, J. LI. & J.H. STOCK, 1990. A new hyporheic *Bogidiella* (Crustacea, Amphipoda) from Mallorca. ____ *Endins* 16, 47-51 (*B. (B.) torrenticola* n. sp.).

PRIDMORE, R.D., S.F. THRUSH, J.E. HEWITT & D.S. ROPER, 1990. Macro-benthic community composition of six intertidal sandflats in Manukau Harbour, New Zealand. ____ *New Zealand Journal of Marine and Freshwater Research* 24, 81-96.

PROCACCINI, G. & M.B. SCIPIONE, 1989. (The Amphipod populations of the Fusaro coastal lagoon.) ____ *Oebalia* NS 15, 315-318 (In Italian).

PUETZ, K. & F. BUCHHOLZ, 1991. Comparative ultrastructure of the cuticle of some pelagic, nektobenthic and benthic malacostracan crustaceans. ____ *Marine Biology* 110, 49- 58.

PUST, J., 1990. Untersuchungen zur Systematik, Morphologie und Ökologie der in der westfälischen Höhlen vorkommenden aquatischen Höhlentiere. ____ *Abhandlungen der Westfälischer Museum zu Naturkunde* 52, 3-188 (Not seen. *Crangonyx* plus 9 *Niphargus* spp)

QUIGLEY, M.A. & G.A. LANG, 1989. Measurements of amphipod body length using a digitizer. ____ *Hydrobiologia* 171, 255-258.

QUIGLEY, M.A. & H.A. VANDERPLOEG, 1991. Ingestion of live filamentous diatoms by the Great Lakes amphipod *Diporeia* sp., a case study of the limited value of gut contents analysis. ____ *Hydrobiologia* 223, 141-148.

RAFFAELLI, D., S. HULL & H. MILNE, 1989. Long-term changes in nutrients, weed mats and shorebirds in an estuarine system. ____ *Cahiers de Biologie marine* 30, 259-270 (i.a. *Corophium volutator*)

RAFFAELLI, D., I. KARAKASSIS & A. GALLOWAY, 1991. Zonation schemes on sandy shores: a multivariate approach. ____ *Journal of Experimental Marine Biology and Ecology* 148, 241-253.

RAFFAELLI, D., J. LIMIA, S. HULL & S. PONT, 1991. Interactions between the amphipod *Corophium volutator* and macroalgal mats on estuarine mudflats. ____ *Journal of Marine Biology Association UK* 71, 899-908.

RAINBOW, P.S., 1989. Copper, cadmium and zinc concentrations in oceanic amphipod and euphausiid crustaceans as a source of heavy metals to pelagic seabirds. ____ *Marine Biology* 103, 513-518 (i.a. *Themisto gaudichaudi* and *T. compressa*)

RAINBOW, P.S. & P.G. MOORE, 1990. Seasonal variation in copper and zinc concentrations in three talitrid amphipods (Crustacea). ____ *Hydrobiologia* 196, 65-72.

RAINBOW, P.S. & S.L. WHITE, 1989. Comparative strategies of heavy metal accumulation by crustaceans: Zinc, copper and cadmium in a decapod, an amphipod and a barnacle. ____ *Hydrobiologia* 174, 245-262 (*Echinogammarus pirloti*)

RAINBOW, P.S. & S.L. WHITE, 1990. Comparative accumulation of cobalt by three crustaceans: A decapod, an amphipod and a barnacle. ____ *Aquatic Toxicology* 16, 113-126 (The amphipod is *Echinogammarus pirloti*).

RAKUSA-SUSZCZEWSKI, S & A. LACH, 1991. Respiration of *Orchomene plebs* (Hurley, 1965) and *Waldeckia obesa* (Chevreux, 1905) from Admiralty Bay (South Shetland Islands, Antarctic). ____ *Hydrobiologia* 223, 177-180.

RAMSDELL, K.A., J.A. STRAND & V.I. COLLINS, 1990? Amphipod bioassay of selected sediments from Sequim Bay, Washington. ____ Pp. 443-448 in *Oceans 89: The global ocean. vol. 2. Ocean pollution. MTS/IEEE*, New York (Not seen. *Rhepoxynius abronius*).

RAU, G.H., T.L. HOPKINS & J.J. TORRES, 1991. 15 N/ 14 N and 13 C/12 C in Weddell Sea invertebrates: implications for feeding diversity. ____ *Marine Ecology - Progress Series* 77, 1-6.

RAUSCHERT, M., 1990. *Pseudodulichia*, eine neue Gattung der Podoceridae aus der Antarktis (Crustacea: Amphipoda: Gammaridea) ____ *Mitteilungen aus dem Zoologischen Museum Berlin* 66, 371-374 (A monotypic genus, based on *Dulichia antarctica*).

RAUSCHERT, M., 1991. Ergebnisse der faunistischen Arbeiten im Benthos von King George Island (Südshetlandinseln, Antarktis). ____ *Berichte zur Polarforschung* 76, 1-75 (Many amphipod data).

RAUSCHERT, M. & H.G. ANDRES, 1991. *Thaumatelsonella kingelepha*, eine neue Gattung und Art aus der Antarktis (Crustacea: Amphipoda: Gammaridea: Stenothoidae). ____ *Helgoländer Meeresuntersuchungen* 45, 225-235 (From the S. Shetland islands. *Pseudothaumatelson patagonicum* is redescribed from the type material. The status and generic position of *P. cyproides* is also discussed).

READ, A.T. & D.D. WILLIAMS, 1990. The role of calceoli in precopulatory behaviour and mate recognition of *Gammarus pseudolimnaeus* Bousfield (Crustacea, Amphipoda). ____ *Journal of Natural History* 24, 351-359 ('No importance for mate recognition: possibly vibrioreceptor').

READ, A. Th. & D.D. WILLIAMS, 1991. The distribution, external morphology, and presumptive function of the surface microstructures of *Gammarus pseudolimnaeus* (Crustacea: Amphipoda), with emphasis

- on the calceolus. ____ Canadian Journal of Zoology 69, 853-965.
- REAVELL, P-E. & D.P. CYRUS, 1989. Preliminary observations on the macrocrustacea of coastal lakes in the vicinity of Richards Bay, Zululand, South Africa. ____ South African Journal of Aquatic Sciences 15, 103-128 (Not seen. Amph.?).
- REES, H.L. & A. ELEFThERIOU, 1989. North Sea benthos: A review of field investigations into the biological effects of man's activities. ____ Journal du Conseil, Commission International pour Exploration de la Mer 45, 284-305.
- REID, R.N., D.J. RADOSH, A.B. FRAME & S.A. FROMM, 1991. Benthic macrofauna of the New York Bight, 1979-89. ____ NOAA Technical Reports NMFS 103, 1-53.
- RESTREPO, V.R. & R.A. WATSON, 1991. An approach to modelling crustacean egg-bearing fractions as a function of size and season. ____ Canadian Journal of Fisheries and Aquatic Sciences 48, 1431-1436.
- RICHARDSON, A.M.M., R. SWAIN & S.J. SMITH, 1991. Local distribution of sandhoppers and landhoppers (Crustacea: Amphipoda: Talitridae) in the coastal zone of western Tasmania. ____ Hydrobiologia 223, 127-140.
- RONEY, J.D., 1990. A new species of marine amphipod (Gammaridea, Ampeliscaidae) from the sublittoral of Southern California. ____ Bulletin of the Southern California Academy of Sciences 89, 124-129 (*Ampelisca brachycladus* n.sp. from shallow water.)
- ROZAS, L.P. & M.W. LASALLE, 1990. A comparison of the diets of Gulf Killifish, *Fundulus grandis* Baird and Girard, entering and leaving a Mississippi brackish marsh. ____ Estuaries 13, 332-336 (i.a. *Corophium insidiosum*)
- RUFFO, S., 1990. A new *Orchestia* from Gran Canaria: *O. stocki* n. sp. (Crustacea, Amphipoda, Talitridae). Studies on Crustacea Amphipoda, 116. ____ Beaufortia 41, 163-167.
- RUFFO, S., P. TURIN & M. ZANETTI, 1990. (Contribution to the knowledge of the distribution of amphipods in eastern Veneto, Italy). ____ Rivista di Idrobiologia 27, (1988), 431-448 (In Italian, not seen).
- SAINTE-MARIE, B., 1991. A review of the reproductive bionomics of aquatic gammaridean amphipods: variation of life history traits with latitude, dept, salinity, and superfamily. ____ Hydrobiologia 223, 189-227 (An important review!)
- SAINTE-MARIE, B., G. LAMARCHE & J.M. GAGNON, 1990. Reproductive bionomics of some shallow-water lysianassids in the Saint Lawrence Estuary, with a review of the fecundity of the Lysianassoidea. ____ Canadian Journal of Zoology 68, 1639-1644 (*Orchomenella minuta*, *O. pinguis*, *Psammonyx terranova*, *Anonyx sarsi* and *Onisimus litoralis*).
- SALEMMA, H. & T. HEINO, 1990. Chromosome numbers of Fennoscandian glacial relict Crustacea. ____ Annales Zoologici Fennici 27, 207-210 (i.a. *Pontoporeia femorata* (n= 14), *P. affinis* (26), *Pallasea quadrispinosa* (26), *Gammaracanthus lacustris* (19), and *Gammarus lacustris* and *G. pulex* (both 26).)
- SALLENAVE, R.M. & D.R. BARTON, 1990. The distribution of benthic invertebrates along a natural turbidity gradient in Lake Temishaming, Ontario-Quebec. ____ Hydrobiologia 206, 225- 234 (i.a. *Pontoporeia hoyi*).
- SALMAN, S.D. & N. JABBAR, 1990. A new species of the genus *Cheiriphotis* Walker, from the north west Arabian Gulf, with a redescription of *C. megacheles* (Giles) (Amphipoda, Isaeidae). ____ Crustaceana 58, 214-226 (*C. williamsoni* n. sp. (= *C. megacheles* s. Walker, 1904) from Iraq. The true *C. megacheles* is redescribed.)
- SANCHEZ, E.L., 1990. A new species of *Pseudoniphargus* (Crustacea, Amphipoda) from subterranean waters in Tenerife (Canary islands). ____ Hydrobiologia 196, 51-64 (*P. candelariae* n.sp.)
- SANCHEZ, E., 1991. New records of *Pseudoniphargus* (Crustacea, Amphipoda) from ground waters of Tenerife and Hierro, with description of new species ____ Stygologia 6, 53-64. (Deals with *P. porticola*, *P. associatus* n.sp. (Tenerife), *P. fontinalis* and *P. salinus*)
- SANCHEZ, E., 1991. Stygofauna of the Canary Islands, 22. *Bogidiella (Stygogidiella) atlantica* n.sp. (Amphipoda) from interstitial waters on the western Canary Islands. ____ Crustaceana 61, 113-124.
- SÄRKKÄ, J., J.J. MERILÄINEN & J. HYNYNEN, 1990. The distribution of relict crustaceans in Finland: new observations and some problems and ideas concerning relicts. ____ Annales Zoologici Fennici 27, 221-225.
- SARVALA, J. & A. UITTO, 1991. Production of the benthic amphipods *Pontoporeia affinis* and *P. femorata* in a Baltic archipelago. ____ Ophelia 34, 71-90.
- SCAPINI, F., M. BUIATTI & M. FALLACI, 1989. Family and individual orientation behaviour in sandhoppers. ____ Ethology, Ecology and Evolution 1, 241-246.
- SCAPINI, F., A. ERCOLINI & R. BOCCACCI, 1988. Laboratory experiments on geotaxis, phototaxis, and anemotaxis in two species of littoral amphipods. ____ Monitore Zoologico Italiano (N.S.) 22, 89-103.
- SCAPINI, F. & D. FASINELLA, 1990. Genetic determination and plasticity in the sun orientation of natural populations of *Talitrus saltator*. ____ Marine Biology 107, 141-145.

- SCHALK, P.H., 1990. Biological activity in the Antarctic zooplankton community. ____ *Polar Biology* 10, 405-412.
- SCHEEPMAKER, M., 1990. Genetic differentiation and estimated levels of gene flow in members of the *Gammarus pulex* group (Crustacea, Amphipoda) in western Europe. ____ *Bijdragen tot de Dierkunde* 60, 3-30.
- SCHEEPMAKER, M., 1990. Genetic differentiation, origin and dispersal of *Gammarus gauthieri* from the Iberian peninsula and North Africa (Crustacea, Amphipoda). ____ *Bijdragen tot de Dierkunde* 60, 31-50.
- SCHNEIDER, F.I. & K.H. MANN, 1991. Species specific relationships of invertebrates to vegetation in a seagrass bed: 1. Correlational studies. ____ *Journal of Experimental Marine Biology and Ecology* 145, 101-118.
- SCHNEIDER, F.I. & K.H. MANN, 1991. Species specific relationships of invertebrates to vegetation in a seagrass bed: 2. Experiments of the importance of macrophyte shape, epiphyte cover, and predators. ____ *Journal of Experimental Marine Biology and Ecology* 145, 119-139.
- SCHOLTZ, B., 1990. The formation, differentiation and segmentation of the post-naupliar germ band of the amphipod *Gammarus pulex* L. (Crustacea, Malacostraca, Peracarida). ____ *Proceedings of the Royal Society, London* 239, 163-211.
- SCHUCHARDT, B., Zur Verbreitung von *Gammarus tigrinus* Sexton in der Unterweser. ____ *Drosera* 87, 129-134.
- SCHULTZE, K., K. JANKE, A. KRUESS & W. WEIDEMANN, 1990. The macrofauna and macroflora associated with *Laminaria digitata* and *L. hyperborea* at the island of Helgoland (German Bight, North Sea.) ____ *Helgoländer Meeresuntersuchungen* 44, 39-51 (Amph. p. 53)
- SCIPIONE, M.B., 1989. (Trophic behavior of Amphipoda in some benthic systems.) ____ *Oebalia NS* 15, 249-260 (In Italian. Seagrass and soft-bottoms in the Tyrrhenian Sea).
- SCIPIONE, M.B., N.C. BUIA, M.C. GAMBI, M. LORENTI, G.F. RUSSO, V. ZUPO & L. MAZZELLA, 1989. (First indication on the benthic communities in an area of the Golfo di Napoli subject to anthropogenic disturbance.) ____ *Nova Thalassia* 10, Suppl. 1, 557-565 (In Italian)
- SCIPIONE, M.B. & L.A. CHESSA, 1986. The benthic fauna of Palau Bay (North-East Sardinia): Amphipoda. ____ *Rapport du Commission International de la Mer Méditerranée* 30, 9-10.
- SCONFIETTI, R., 1991. Ecological zonation and dynamics of hard-bottom Peracarid communities along the lagoon estuary of the River Dese (Lagoon of Venice, northern Adriatic Sea. ____ *Rivista Idrobiologia* 28 (1989), 3-32 (Not seen, unfortunately.)
- SEDLAK- WEINSTEIN, E., 1991. Three new records of cyamids (Amphipoda) from Australian Cetaceans. ____ *Crustaceana* 60, 90-104 (*Syncyamus aequus*, *S. pseudorca*, *Isocyamus delphini* and *Platycyamus thompsoni*.)
- SHEEHY, M.R.J., 1990. Widespread occurrence of fluorescent morphological lipofuscin in the crustacean brain. ____ *Journal of Crustacean Biology* 10, 613-622. (i.a. *Talitrus* sp.)
- SHIH, Ch-t., 1991. Description of two new species of *Phronima* Latreille, 1802 (Amphipoda: Hyperidea) with a key to all species of the genus. ____ *Journal of Crustacean Biology* 11, 322-335 (*P. bowmani* n.sp. and *P. dunbari* n. sp., both from the eastern tropical Pacific).
- SHIN, P.K.S., 1987. Infaunal macrobenthos of beach sediments in Hong Kong. ____ *Asian Marine Biology* 4, 141-146.
- SHIN, P.K.S., 1988. Infaunal macrobenthos of beach sediments in Hong Kong. ____ Pp. 155-164 in Proc. 1. Symp. mar. Biol. South China Sea. China Ocean Press, Beijing. (Not seen)
- SHYAMASUNDARI, K., 1988. Development in *Corophium triaenonyx* Stebbing, a fouling amphipod in Visakhapatnam Harbor. ____ Pp. 141-150 in M.F. Thompson, R. Sarojni & R. Nagabhushanam (eds). *Marine biodeterioration: advanced techniques applicable to Indian Ocean*. Oxford & IBH, N. Delhi (Not seen)
- SINERVO, B. & R.W. DOYLE, 1990. Life-history analysis in 'physiological' compared with 'sidereal' time: An example with an amphipod (*Gammarus lawrencianus*) in a varying environment. ____ *Marine Biology* 107, 129-140.
- SKET, B., 1985. Why all cave animals do not look alike - a discussion on adaptive value of reduction processes. ____ *NSS Bull.* 47. 78-84.
- SKET, B., 1988. Speleobiological investigations in the Colombian Andes 1984. ____ *Biologia Vestnik, Ljubljana* 36, 53-62 (No Amph.)
- SKET, B., 1990. Is *Niphargobates lefkodemonaki* sp. n. (Crustacea: Amphipoda) from Kriti (Greece) a zoogeographical enigma? ____ *Zoologisches Jahrbuch Abt. Systematik* 117, 1-10 (*N. lefkodemonaki* n.sp. from a cave in Kriti (= Crete, Kreta), Greece)
- SKET, B. & G. KARAMAN, 1990. *Niphargus rejici* (Amphipoda), its relatives in the Adriatic islands, and its possible relations to S.W. Asian taxa. ____ *Stylogologia* 5, 153-172 (Deals with *N. rejici*, *N.r. jadranka* n. ssp. (island Krk, Croatia), and *N. pectencoronatae* n. sp. (Kornati archipelago, Croatia) all taxa in the *orcinus* - group).

- SORBE, J.-C., 1989. Structural evolution of two suprabenthic soft-bottom communities of the South Gascogne continental shelf. ____ *Scientia Marina* 53, 335-342.
- SPARLA, M.P., M.B. SCIPIONE & S. RIGGIO, 1987. Distribution of amphipods and tanaidaceans (Crustacea, Peracarida) inhabiting *Rityphloea tinctoria* (Clem.) C. Ag. ____ *Bulletin of Ecology* 2, 248.
- SPICER, J.I. & B.R. McMAHON, 1991. Hemocyanin oxygen binding and the physiological ecology of a range of talitroidean amphipods (Crustacea). 2 Effect of freezing, inorganic ions, and urate on oxygen binding in vitro. ____ *Journal of Comparative Physiology B* 161, 217-223 (*Apohyale pugettensis*, *Megalorchestia californiana* and *Traskorchestia traskiana*.)
- STAROBOGATOV, Yo. I., 1991. Problems in the nomenclature of higher taxonomic categories. ____ *Bulletin of Zoological Nomenclature* 48, 6-18.
- STEARNS, D.E. & M.R. DARDEAU, 1990. Nocturnal and tidal vertical migrations of 'benthic' crustaceans in an estuarine system with diurnal tides. ____ *Northeast Gulf Science* 11, 93-104 (An Alabama study, featuring i.a. *Gammarus tigrinus*, *Corophium lacustre* and *Grandidierella bonnieroides*).
- STEELE, D.H., 1990. Comparison of oostegite shapes in some gammaridean species (Crustacea: Amphipoda). ____ *Bijdragen tot de Dierkunde* 60, 277-282.
- STEELE, D.H., 1991. Is the oostegite structure of amphipods determined by their phylogeny or is it an adaptation to their environment? ____ *Hydrobiologia* 223, 27-34 (Mainly the latter!)
- STEELE, D.H., 1991. The genus *Anonyx* (Crustacea, Amphipoda) in the North Pacific and Arctic oceans: the *Anonyx bispinosus* group. ____ *Canadian Journal of Zoology* 69, 1600-1611 (Deals with *A. bispinosus*, *A. grebnitzkii* n.sp. (Bering Isl.), *A. eous*, *A. pseudoeous* n.sp. (Cape Lisburne, Alaska), *A. eousides* n.sp. (Okhotsk Sea), *A. pareous* n.sp. (Okhotsk Sea), *A. pavlovskii* and *A. birulai*.)
- STEELE, D.H. & A. WHITTICK, 1991. Seasonal variation in *Pilayella littoralis* (Phaeophyceae) and its consequences as a food source for the amphipod *Gammarus lawrencianus*, in the intertidal of Newfoundland. ____ *Journal of the Marine Biological Association UK* 71, 883-889.
- STEELE, V. J., 1991. The distribution and frequency of the type II microtrichs in some gammaroidean amphipods. ____ *Hydrobiologia* 223, 35-42.
- STEPHENSON, M. & G.L. MACKIE, 1989. A laboratory study of the effects of waterborne cadmium, calcium, and carbonate concentrations on cadmium concentrations in *Hyaella azteca* (Crustacea: Amphipoda). ____ *Aquatic Toxicology* 15, 53-62 (Not seen)
- STOCK, J.H., 1989. Comparaison des stygofaunes des îles calcaires et volcaniques de l'Atlantique tropical. ____ *Mémoires de Biospéologie* 16, 15-16.
- STOCK, J.H., 1989. Landhoppers (Amphipoda, Talitridae) of the genus *Orchestia* of the Canary Islands. ____ *Bulletin du Museum National d'Histoire Naturelle de Paris* (4) 11, 659-668 (Deals with *O. canariensis* (Gran Canaria), *O. gomeri* n.sp. (La Gomera) and *O. guanacha*.)
- STOCK, J.H., 1990. A new forest-hopper (Amphipoda, Talitridae) from La Palma, Canary Islands. ____ *Vieraea* 18, 91-98 (*Palmorchestia epigaea* n.sp.)
- STOCK, J.H. & T.M. ILIFFE, 1990. A new Australian crangonyctid amphipod with a habit convergent to the Old World genus *Niphargus*. ____ *Stygologia* 5, 137-142 (*Uronyctus longicaudus* n.gen. n. sp. from the Mt. Gambier area, S. Australia.)
- STOCK, J.H. & T.M. ILIFFE, 1991. Two new species of *Liagoceradocus* (hypogean Amphipoda) from southwestern Pacific Islands, with key to the world species. ____ *Invertebrate Taxonomy* 5, 807-825 (*L. lobiferus* n.sp. from Solomon Isl. (also W. Samoa), and *L. unciferus* n.sp. from Fiji. A key to all spp. is provided).
- STOCK, J.H. & Y.W. JO, 1990. The Japanese amphipod genus *Eoniphargus* rediscovered in a South Korean cave. ____ *Proceedings of the Biological Society of Washington* 103, 624-632 (*E. glandulatus* n.sp. *Eoniphargus* probably does not belong to the Crangonyctoidea).
- STOCK, J.H. & E. SANCHEZ, 1990. First record of Crustacea Malacostraca from fresh waters in the Canary Islands. ____ *Hydrobiologia* 206, 53-59 (*Rhipidogammarus rheophilus* n. sp. from NW Tenerife.)
- STOCK, J.H. & R. VONK, 1990. Stygofauna of the Canary Islands, 23. A freshwater amphipod from La Gomera, *Melita dulcicola* n.sp. ____ *Annales de Limnologie* 26, 29-37.
- STOCK, J.H. & R. VONK, 1991. Une espèce nouvelle de *Dulzura*, genre d'Amphipodes hadzioides connu jusqu'ici seulement de l'Indo-Pacifique, découverte aux îles du Cap-Vert (océan Atlantique). ____ *Cahiers de Biologie marine* 32, 477-486 (*Dulzura lobata* n.sp., Cape Verde Isl., with a key to all *Dulzura* species).
- STONES, A.W. & C. ACEVEDO, 1990. The macroinfaunal community of a tropical estuarine lagoon. ____ *Estuaries* 13, 174-181.
- STRANN, K.-B. & R.W. SUMMERS, 1990. Diet and diurnal activity of Purple Sandpipers *Calidris maritima* wintering in northern Norway. ____ *Fauna norvegica Ser. C.*, Cinclus 13, 75-78 (Amph. important food.)
- SUGISAKI, H., M. TERAZAKI, E. WADA & T. NEMOTO, 1991. Feeding habits of a pelagic amphipod, *Themisto japonica*. ____ *Marine Biology* 109, 241-244 (Changes from herbivore to carnivore during growth.)

- SUNDARAM, K.M.S., S.B. HOLMES, D.P. KREUTZWEISER, A. SUNDARAM & P.D. KINGSBURY, 1991. Environmental persistence and impact of diflubenzuron in a forest aquatic environment following aerial application. _____ Archives of Environmental Contamination and Toxicology 20, 313-321 (Not seen. Amph.+)
- SUNDELIN, B. & R. ELMGREN, 1991. Meiofauna of an experimental soft-bottom ecosystem - effects of macrofauna and cadmium exposure. _____ Marine Ecology - Progress Series 70, 245-255 ('Macrofauna' of title is *Pontoporeia affinis*)
- SWARTZ, R.C., D.W. SCHULTS, T.H. DEWITT, G.R. DITSWORTH & J.D. LAMBERSON, 1990. Toxicity of fluoranthene in sediment to marine amphipods: A test of the equilibrium partitioning approach to sediment quality criteria. _____ Environmental Toxicology and Chemistry 9, 1071-1080 (Tests with *Rhepoxynius abronius* and *Corophium spinicorne*.)
- SWARTZ, R.C., D.W. SCHULTS, J.D. LAMBERSON, D.J. OZRETICH & J.K. STULL, 1991. Vertical profiles of toxicity, organic carbon, and chemical contaminants in sediment cores from the Palos Verdes Shelf and the Santa Monica Bay, California. _____ Marine Environmental Research 31, 215-225 (*Rhepoxynius abronius*)
- TAKEUCHI, I., 1986. *Caprella kominatoensis* n.sp. (Amphipoda, Caprellidae) from Amatsu-Kominato, Chiba, Japan. _____ Bulletin of the National Science Museum 12, 67-73.
- TAKEUCHI, I., 1990. (A preliminary note on a hermaphrodite abnormality of *Caprella danilevskii* Czerniavski (Crustacea: Amphipoda). _____ Annual Report of the Marine Ecosystems Research Centre, Chiba University 10, 29-30 (In Japanese.)
- TAKEUCHI, I. & HIRANO, 1988. (A preliminary report on the life-history of *Caprella danilevskii* (Crustacea, Amphipoda) reared in the laboratory.) _____ Bulletin of the Japanese Association of Benthologists 32, 37-41 (In Japanese.)
- TAKEUCHI, I. & R. HIRANO, 1991. Growth and reproduction of *Caprella danilevskii* (Crustacea: Amphipoda) reared in the laboratory. _____ Marine Biology 110, 391-397.
- TAKEUCHI, I. & S. ISHIMARU, 1991. Redescription of (*Caprogammarus gurjanovae* Kudrjaschov & Vassilenko, 1966 (Crustacea: Amphipoda) from Hokkaido, Japan, with notes on the taxonomic status of *Caprogammarus*. _____ Hydrobiologia 223, 283-291 (*Caprogammarus* is considered to belong to the Caprellidea).
- TAKEUCHI, I., R. KUWABARA, R. HIRANO & H. YAMAKAWA, 1987. Species compositions of the Caprellidea (Crustacea: Amphipoda) of the Sargassum zone on the Pacific coast of Japan. _____ Bulletin of Marine Science 41, 253-267.
- TAKEUCHI, I., M. TAKEDA & K. TAKESHITA, 1989. Redescription of the bathyal caprellid, *Caprella unguina* Mayer 1903 (Crustacea, Amphipoda) from the North Pacific. _____ Bulletin of the National Science Museum, Ser. A (Zoology) 15, 19-28.
- TAKEUCHI, I., H. YAMAKAWA & M. FUJIWARA, 1990. Density fluctuation of caprellid amphipods (Crustacea) inhabiting the red alga *Gelidium amansii* (Lamouroux) Lamouroux, with emphasis on *Caprella okadai* Arimoto. _____ Mer (Tokyo) 28, 30-36
- TARAMELLI, E. L. FASSETTA & G. GENTILE, 1990. (Observation on crustacean amphipods of the Central Adriatic (Grottomare)) _____ Rivista d'Idrobiologia 27 (1988), 449-472 (In Italian, not seen)
- TARAMELLI, E. & L. VENANZANGELI, 1989-90. Benthic population in Torvaldaliga (Civitavecchia, Italia). Crustacea Amphipoda (sic). _____ Oebalia N.S 16, 49-67.
- TARARAM, A.S., H. de S.L. MESQUITA, Y. WAKABARA & C.A. PERES, 1990. Food ingestion and assimilation by *Hyale media* (Dana 1853) (Crustacea: Amphipoda). _____ Boletim de Instituto Oceanographico di Sao Paulo 38, 11-21.
- TAYLOR, E.J., S.J. MAUND & D. PASCOE, 1991. Toxicity of four common pollutants to the freshwater macroinvertebrates *Chironomus riparius* Meigen (Insecta: Diptera) and *Gammarus pulex* (L.) (Crustacea: Amphipoda). _____ Archives of Environmental Contamination and Toxicology 21, 371-376 (DCA, atrazine, copper and lindane).
- TENTORI, E. & A.P.M. LOCKWOOD, 1990. Haemolymph magnesium levels in some oceanic Crustacea. _____ Comparative Biochemistry and Physiology 95 A, 545-548 (Not seen. Amph. +)
- THOMAS, J.D. & J.L. BARNARD, 1990. *Gitana dominica*, a new species from the Caribbean Sea (Amphipoda: Amphilocheidae). _____ Proceedings of the Biological Society of Washington 103, 617-623 (from the island of Dominica).
- THOMAS, J.D. & J.L. BARNARD, 1990. *Jerbarnia stocki*, a new species from the Barrier Reef (Crustacea, Amphipoda). _____ Beaufortia 41, 169-176 (With a survey of the maerellids: *Maerella*, *Coxomaerella* and *Jerbarnia*.)
- THOMAS, J.D. & J.L. BARNARD, 1991. *Photis trophurus*, a new elephantine species from the Caribbean Sea (Crustacea: Amphipoda) _____ Proceedings of the Biological Society of Washington 104, 96-100 (Dominica, W. Indies).
- THOMAS, J.D. & J.L. BARNARD, 1991. A review of the genus *Iphimedia* (Crustacea: Amphipoda) with descriptions of three new species from Australia, Papua

New Guinea and Florida. ____ Invertebrate Taxonomy 5, 469-485 (With a discussion of the genus and its species. The genus *Cypsiphimedia* is synonymized with *Iphimedia*, and *I. joubini* transferred to *Stegopanoploea*. The authors doubt Karaman's transfer of *I. hedgpethi* to *Coboldus*. New taxa are *I. warraina* n.sp. (S. Australia), *I. zora* n.sp. (Florida Keys, USA), and *I. xesta* n.sp. (Madang, PNG).)

THOMAS, J.D. & J.L. BARNARD, 1991. Two new species of *Netamelita* from the Caribbean Sea (Crustacea: Amphipoda: Gammaridea). ____ Proceedings of the Biological Society of Washington 104, 583-592 (*N. brocha* n.sp. (Florida Keys) and *N. tabaci* n.sp. (Belize). A key to all *Netamelita* spp. is provided.)

THRUSH, S.F., R.D. PRIDMORE, J.E. HEWITT & V.J. CUMMING, 1991. Impact of ray feeding disturbances on sandflat macrobenthos: do communities dominated by polychaetes or shellfish respond differently? ____ Marine Ecology - Progress Series 69, 245-252 (i.a. *Paracalliope novizealandiae*).

THURSTON, M.H., 1990. Abyssal necrophagous amphipods (Crustacea: Amphipoda) in the northeast and tropical Atlantic Ocean. ____ Progress in Oceanography 24, 257-274.

TRAJANO, E., 1989. (Spontaneous and feeding behavior and diet of the blind catfish. *Pimelodella kronei*, and its putative ancestor, *Pimelodella transitoria*, from southeastern Brazil (Siluriformes Pimelodidae).) ____ Revista Brasileira de Biologia 49, 757-770. (In Portuguese, not seen. Predators of amphipods.)

TSUCHIYA, M. & D. BELLAN-SANTINI, 1989. Vertical distribution of shallow rocky shore organisms and community structure of mussel beds (*Mytilus galloprovincialis*) along the coast of Marseille, France. ____ Mesogée, Bulletin du Museum d'Histoire Naturelle de Marseille 49, 91-110 (Not seen).

TUFOIL, A., P.S. MEADOWS & P. McLOUGHLIN, 1989. Meso- and microscale heterogeneity in benthic community structure and the sedimentary environment on an intertidal muddy-sand beach. ____ Scientia Marina 53, 319-327 (A Scottish study, with i.a. *Bathyporeia guillamsoniana* and *Corophium volutator*.)

TZVETKOVA, N.L., 1990. (An addition to the fauna of amphipods (Amphipoda, Talitroidea, Hyalidae) from the shallow waters of the East Kamchatka). ____ Trudy Zoologicheskoy Institut Leningrad, Akademya Nauk SSSR 218, 40-53 (In Russian. Deals with *Allorchestes bellabella*, *A. carinatus* and *Parallorchestes asiaticus* n.sp., all from Kronotsky Bay, E. Kamchatka.)

TZVETKOVA, N.L. & A.A. GOLIKOV, 1990. (Fauna, ecology and role in ecosystems of amphipods (Amphipoda, Gammaridea) at the New Siberian shoals and adjacent waters in the Laptev Sea). ____ Issledovaniya Fauna Morey SSSR 37 (45), 258-343 (In Russian. With descriptions and illustrations of *Ampelisca latipes*, *A. macrocephala*, *Byblis arcticus*, *Haploops cf. laevis*, *H.*

sibirica, *Erichthonius hunteri*, *Gammaropsis aff. melanops*, *Protomedeia fasciata*, *Dyopedos bispinus*, *D. monacanthus*, *Apherusa retovskii*, *Pleusymtes margulisae* n.sp., *Metopa aff. boeckii?* ssp. nov., *M. leptocarpa*, *M. robusta*, *M. shoemakeri* n. sp., *M. gurjanovae* n.sp., *Metopella buynitzkii*, *M. bousfieldi* n.sp., *Stenula nordmanni*, *S. alexanderi* n. sp., *Monoculodes packardi*, *M. vibei*, *Harpinia panini* Gurj. (was nom. nudum) and *H. salebrosa*).

UDALOVA, G.P., A.Ya. KARAS & M.I. ZHUKOVSKAYA, 1990. (Asymmetry of the movement direction in *Gammarus oceanicus* in the open field test). ____ Zhurnal Vyssh. Nervn Deyat Im.I. P. Pavlova 40, 93-101 (In Russian, not seen).

UGOLINI, A., 1989. Orientation in the water and antipredatory behaviour in sandhoppers. ____ Marine Behaviour and Physiology 14, 223-230.

UGOLINI, A., 1989. Predation and orientation in *Talitrus saltator*. ____ Proceedings of the 21st International Ethology Conference, 9-17 Aug. 1989. Utrecht, abstract only.

UGOLINI, A., 1990. Predation and orientation in littoral amphipods. ____ Ethology, Ecology and Evolution 2, 331.

UGOLINI, A., S. FELICIANI & T. MACCHI, 1991. Orientation in the water and learning in *Talitrus saltator* Montagu. ____ Journal of Experimental Marine Biology and Ecology 151, 113-119.

UGOLINI, A. & L. PARDI, 1991. The sun's role in magnetic orientation of equatorial sandhoppers. ____ Society of Experimental Biology, Birmingham Meeting, Abstract only.

UITTO, A. & J. SARVALA, 1990. Perspectives on the ecological factors regulating *Pontoporeia* populations in the northern Baltic Sea. ____ Annales Zoologici Fennici 27, 297-301.

UITTO, A. & J. SARVALA, 1991. Seasonal growth of the benthic amphipods *Pontoporeia affinis* and *P. femorata* in a Baltic archipelago in relation to environmental factors. ____ Marine Biology 111, 237-246.

VADER, W. & N.K. LETH, 1990. Notes on Norwegian marine Amphipoda 11. *Ceradocus torelli* (Goes, 1866), a new amphipod for Norway. ____ Fauna Norvegica, Ser. A 11, 59.

VÄINÖLÄ, R., 1990. Molecular time scales for evolution in *Mysis* and *Pontoporeia*. ____ Annales Zoologici Fennici 27, 211-214.

VÄINÖLÄ, R. & H. ROCKAS, 1990. New distributional data on 'glacial relict crustaceans' ____ Annales Zoologici Fennici 27, 215-220.

VAL'TER, E.D., 1991. *Caprella septentrionalis* Kröyer

- (Amphipoda, Caprellidae), an intermediate host of nematodes of the genus *Contracaecum* Railliet et Henry. ____ Canadian Translations Fisheries and Aquatic Sciences 5534, 7 pp (Not seen. Translated from Russian, Zoologicheskii Zhurnal 47, 127-131.)
- VARENKO, N.I., N.I. ZAGUBIZHENKO & Yu. K. GAIDASH, 1991. (Role of zoobenthos in the migration of trace elements in the Zaporozhye water reservoir (Ukrainian SSR, USSR).) ____ *Gidrobiologicheskii Zhurnal* 27, (1), 78-82 (In Russian, not seen; i.a. *Pontogammarus crassus*)
- VASSILENKO, S.V., 1991. Ecophysiological characteristics of some common caprellid species in the Possjet Bay (the Japan Sea). ____ *Hydrobiologia* 223, 181-187.
- VERGARA, P.A., A.H. BUSCHMANN & F.A. KUSCHEL, 1990. (Abundance of amphipods on the exposed shore of Pucatrihue, Chile.) ____ *Revista de Biología Marina, Valparaiso* 25, 93-107 (In Spanish. On *Hyale*)
- VINOGRADOV, G.M., 1990. (Amphipods in the near-bottom layer in the south-western part of the Indian Ocean.) ____ *Okeanologiya* 30, 121-125 (In Russian. On the boundary between pelagic hyperiids and benthopelagic gammaroids).
- VINOGRADOV, G.M., 1990. (Life form ratio of hyperiid amphipods in different parts of the ocean.) ____ *Okeanologiya* 30, 656-665 (In Russian).
- VINOGRADOV, G.M., 1990. (The life-forms of the shallow-water amphipods (Crustacea, Amphipoda) of the Great Salma strait.) ____ *Biologiya Nauki (Moskva)* 0-8, 77-85 (In Russian).
- VINOGRADOV, G.M., 1991. Hyperiid amphipods in the eastern part of the South Pacific gyre. ____ *Marine Biology* 109, 259-265 (119 spp, listed on pp 261-262. New species in the genera *Streetsia* and *Hemiscelus* are mentioned, but not here described)
- VINOGRADOV, M.E., A.M. KUDIN, A.V. SMOLKO & T.O. ABRAMYAN, 1991. (Structure of migrating aggregations of pelagic organisms.) ____ *Doklady Akademii Nauk SSSR* 317, 1226-1229 (In Russian).
- VONK, R., 1990. *Psammogammarus stocki* n. sp. (Crustacea, Amphipoda, Melitidae) from beach interstitia on Tenerife. Stygofauna of the Canary Islands, 21. ____ *Bijdragen tot de Dierkunde* 60, 271-276.
- VONK, R., 1990. Amsterdam Expedition to the West Indies. 66. *Thalassostygius exiguus* n.g., n. sp., a new marine interstitial melitid (Crustacea, Amphipoda) from Curacao and Klein Bonaire (Netherlands Antilles). ____ *Stylogia* 5, 43-48.
- VONK, R., 1991. Two marine interstitial *Metaniphargus* species (Crustacea, Amphipoda) from Hawaii and the Cayman Islands. ____ *Stylogia* 6, 111-118 (*M. sabulonis* n.sp. from Cayman Isl., *M. laakona* (transferred from *Eriopisa*) from Oahu, Hawaii.)
- VONK, R. & E. SANCHEZ, 1991. A new marine interstitial ingolfiellid (Crustacea, Amphipoda, Ingolfiellidae) from Tenerife and Hierro. ____ *Hydrobiologia* 223, 293-299. (*I. canariensis* n. sp.)
- WAKABARA, Y., A.S. TARARAM, M.T. VALERIO-BERARDO, W. DULEBA & F.P. PEREIRA LEITE, 1991. Gammaridean and caprellidean fauna from Brazil. ____ *Hydrobiologia* 223, 69-77 (Extremely useful checklist)
- WALLER, G.N.H., 1989. Two new species of whale lice (Cyamidae) from the ziphiid whale *Berardius bairdi*. ____ *Investigations on Cetacea* 22, 292-297 (*Platycyamus flaviscutatus* n. sp. and *Cyamus orubraedon* n. sp.)
- WARREN, A. & J. PAYNTER, 1991. A revision of *Cothurnia* (Ciliophora: Peritrichida) and its morphological relatives. ____ *Bulletin of the British Museum of Natural History, Zoology* 57, 17-59.
- WEEKS, J.M. & P.G. MOORE, 1991. The effects of synchronous moulting on body copper and zinc concentrations in four species of talitrid amphipods (Crustacea). ____ *Journal of Marine Biology Association UK* 71, 481-488.
- WEEKS, J.M. & P.S. RAINBOW, 1990. A dual-labelling technique to measure the relative assimilation efficiencies of invertebrates, taking up trace metals from food. ____ *Functional Ecology* 4, 711-717.
- WEEKS, J.M. & P.S. RAINBOW, 1991. The uptake and accumulation of zinc and copper from solution by two species of talitrid amphipods (Crustacea). ____ *Journal of Marine Biology Association UK* 71, 811-826 (*Orchestia gammarellus* and *O. mediterranea*.)
- WEIGMANN-HAAS, R., 1990. Taxonomie und Verbreitung von *Vibilia antarctica* Stebbing 1888 im antarktischen Teil des Atlantik (Crustacea: Amphipoda: Hyperiididae). ____ *Senckenbergiana Biologia* 70 (1989), 419-428.
- WEIGMANN-HAAS, R., 1991. Zur Taxonomie und Verbreitung der Gattung *Hyperoche* Bovallius 1887 im antarktischen Teil der Atlantik (Crustacea: Amphipoda: Hyperiididae). ____ *Senckenbergiana Biologia* 71 (1989), 169-179 (Deals with *H. luetkenides* and *H. capucinus*)
- WEINBERG, S. & W. v. ZIJL, 1990. A multidisciplinary study of Jan Hendrik Stock (with the description of one new genus and four new species). ____ *Bulletin of the Zoological Museum, Amsterdam, special Issue*, 1-44 (A courageous effort to unravel the history and personality of Jan Stock, published at the occasion of his retirement as professor of zoology at Amsterdam University. Even I, who have known Jan since he was 20, learned a lot from this insightful paper. Highly recommended).
- WESLAWSKI, J.M., S. KWASNIEWSKI & J. WIKTOR, 1991. Winter in a Svalbard fiord ecosystem. ____ *Arctic*

44, 115-123.

WHITEHURST, I.T., 1989. Factors affecting the *Gammarus* to *Asellus* ratio in unpolluted and polluted waters. _____ Dissertation Abstracts B- Sci. 2 Eng. 50, 351 pp (Not seen).

WHITFIELD, A.K., 1989. The benthic invertebrate community of a southern Cape estuary: Structure and possible food sources. _____ Transactions of the Royal Society of South Africa 47, 159-190 (i.a. *Melita zeylanica*, *Urothoe pulchella* and *Orchestia*. Not seen.)

WILDISH, D.J. & B. FROST, 1991. Volumetric growth in gammaridean Amphipoda. _____ Hydrobiologia 223, 171-176.

WILLIAMS, D.D., 1991. Life history traits of aquatic arthropods in springs. _____ Memoirs of the Entomological Society of Canada 155, 63-88 (Not seen. Amph.?)

WILLIAMS, W.D., A.J. BOULTON & R.G. TAAFFE, 1990. Salinity as a determinant of salt lake fauna: a question of scale. _____ Hydrobiologia 197, 257-266.

WILSON, W.H., 1991. Competition and predation in marine soft-sediment communities. _____ Annual Review of Ecology and Systematics 21, 221-241.

WONES, A.G. & G.L. LARSON, 1991. The benthic macro invertebrate community in a coastal sand dune lake relative to habitat and changing lake levels. _____ Hydrobiologia 213, 167-181 (An Oregon study).

Corophium spinicorne dominant in littoral zones).

YAMATO, S., 1990. Two new species of the genus *Melita* (Crustacea: Amphipoda) from shallow waters of the Seto Inland Sea of Japan. _____ Publications of the Seto Marine Biology Laboratory 34, 149-165 (*M. hoshinoi* n.sp. and *M. quadridentata* n.sp. The author does not recognize the genus *Abludomelita*.)

ZANDER, C.D., 1990. Prey selection of the shallow water fish *Pomatoschistus minutus* (Gobiidae, Teleostei) in the SW Baltic _____ Helgoländer Meeresuntersuchungen 44, 147-157.

ZEIDLER, W., 1990. Pelagic Amphipoda, infraorder Physosomata (Crustacea: Amphipoda: Hyperiidia) from the CSK International Zooplankton Collection (western North Pacific) with the description of four new species of *Scina*. _____ Publications of the Seto Marine Biology Laboratory 34, 167-200 (Describes *Scina curvidactyloides* n. sp., *S. parasetigera* n. sp., *S. hurleyi* n. sp., *S. exospina* n. sp. and *Scina* sp., and provides a key to world *Scina*).

ZHENG, Z., 1990. (Environmental sex determination and sex ratio in Crustacea). _____ Journal of Oceanography of Taiwan Straits 9, 191- 199. (In Chinese, not seen.)

ZMUDZINSKI, L., 1990. Past and present occurrence of Malacostraca glacial relicts in Polish lakes. _____ Annales Zoologici Fennici 27, 227-230 (i.e. *Pallasea* and *Pontoporeia affinis*.)

NEW AMPHIPOD TAXA IN AMPHIPOD NEWSLETTER 19

Wim Vader

As promised, I'll try to bring out an index to each AN from now on.

New families and subfamilies in AN 19

ACANTHONOTOZOMELLIDAE Coleman & Barnard, 1991. *Acanthonotozomella* (type), *Acanthonotozomoides*, *Acanthonotozomopsis* and *Amatiguakius*

AMATHILLOPSIDAE (revived) Coleman & Barnard, 1991. *Amathillopsis* (type)

DIKWIDAE Coleman & Barnard, 1991. *Dikwa* (type)

ODIIDAE Coleman & Barnard, 1991. *Odius* (type), *Postodius*

VICMUSIIDAE Just, 1990. *Vicmusia*

WANDINIDAE Lowry & Stoddart, 1990. *Wandin* (type), *Pseudocyphocaris*

New genera and subgenera in AN 19

AMATIGUAKIUS Coleman & Barnard, 1991. *Acanthonotozomellidae*. *A. forsberghii*.

AMERICORCHESTIA Bousfield, 1991. Talitridae. *Orchestia longicornis* (+3)

APOTECTONIA Barnard & Ingram, 1990. Lysianassoidea *A. heterostegos*.

BONASSA Barnard & Karaman, 1991. Lysianassoidea *Lysianassa bonairensis*

CAECONYX Barnard & Karaman, 1991. Lysianassoidea *Hoplonyx caeculus*

- CARINOMELITA Bousfield, 1990. Melitidae. *C. janstocki*
- CERRORCHESTIA Lindeman, 1990. Talitridae. *C. hyloraina*
- CONCARNES Barnard & Karaman, 1991. Lysianassoidea. *Socarnes concavus*
- CORNUDILLA Barnard & Karaman, 1991. Oedicerotidae. *Westwoodilla cornuta*
- COXIMEDON Barnard & Karaman, 1991. Lysianassoidea. *Normania latimana* (+1)
- DARTENASSA Barnard & Karaman, 1991. Lysianassoidea. *Lysianassa dartevillei*
- DIATECTONIA Barnard & Ingram, 1990. Lysianassoidea. *D. typhodes*.
- DISSIMINASSA Barnard & Karaman, 1991. Lysianassoidea. *Aruga dissimilis*
- FALCONASSA Barnard & Karaman, 1991. Lysianassoidea. *Lysianassa falcata*
- GRONELLA Barnard & Karaman, 1991. Lysianassoidea. *Anonyx groenlandicus*
- HARDAMETOPA Barnard & Karaman, 1991. Stenothoidae. *Metopa nasuta* (+1)
- LYSIANASSINA Costa, 1867 (revived, Barnard & Karaman 1991) Lysianassoidea. *Lysianax longicornis*
- MACRONASSA Barnard & Karaman, 1991. Lysianassoidea. *Aruga macromerus* (+1)
- MARTENSIA Barnard & Karaman, 1991. Lysianassoidea. *Lysianassa martensi*
- MESOCHTONGIDIELLA subgen. Grosso & Fernandez, 1985. Bogidiellidae (*Bogidiella*). *B. (M.) tucumanensis*.
- MEXITROIDES subgen. Lindeman, 1990. Talitridae (*Caribotroides*). *C. (M.) pecki* (+1)
- OTAGIA Barnard & Karaman, 1991. ? Condukiidae *Platyischnopus neozelanicus*
- PARADICAPRELLA Hirayama, 1990. Caprellidea. *P. brucei*
- RADYOPEDOS Andres & Rauschert, 1990. Podoceridae. *P. antarcticus*
- PLUMITHOE Barnard & Karaman, 1991. Amphithoidae. *Amphithoe plumicornis* (+1)
- PSEUDODULICHIA Rauschert, 1990. Podoceridae. *Dulichia antarctica*
- RELICTOMOERA Barnard & Karaman, 1991. Eusiroidea. *Paramoera relicta* (+1)
- RINGARINGA Barnard & Karaman, 1991. Phoxocephalidae. *Metaphoxus littoralis*
- SEPTCARNES Barnard & Karaman, 1991. Lysianassoidea. *Socarnes septimus*
- STERNOMOERA Barnard & Karaman, 1991. Eusiroidea. *Paramoera yezoensis* (+2)
- TECTOVALOPSIS Barnard & Ingram, 1990. Lysianassoidea. *T. wegneri* (+4)
- THALASSOSTYGIUS Vonk, 1990. Melitidae. *Th. exiguus*.
- TRANSTECTONIA Barnard & Ingram, 1990. Lysianassoidea. *T. torrentis*
- TULUWECKELIA Holsinger, 1990. Hadziidae. *T. cernua*
- URONYCTUS Stock & Iliffe, 1990. Crangonyctidae *U. longicaudatus*
- VENTIELLA Barnard & Ingram 1990. Lysianassoidea. *V. sulfuris*
- VICMUSIA Just, 1990. Vicmusiidae. *V. duplocoxa*
- WANDIN Lowry & Stoddart, 1990. Lysianassoidea Wandinidae. *W. griffini*

New species and subspecies in AN 19

- ALEXANDERI (*Stenula*) Tzvetkova & Golikov, 1990. Laptev Sea, Siberia
- ALONSOAE (*Jassa*) Conlan, 1990. S. Georgia.
- ALPINUS subsp. (*Niphargus strouhali*) Karaman & Ruffo, 1989. Italian Alps.
- AMCHITKENSIS (*Podoceropsis*) Conlan, 1983. Aleutian Isl.
- AMERICANA subsp. (*Cheirimedeia macrocarpa*) Conlan, 1983. British Columbia
- ANGUSTIMANA (*Podoceropsis*) Conlan, 1983. Vancouver Isl., Br. Columbia.
- ANTARCTICUS (*Paradyopedos*) Andres & Rauschert, 1990. 61°S, 54°W.
- AQUATICA (*Bogidiella*) Karaman, 1990. Kreta.
- AROUDANENSIS (*Metacrangonyx*) Messouli, Boutin & Coineau, 1991. Haut Atlas, Morocco.
- ASIATICUS (*Parallorchestes*) Tzvetkova, 1990. E. Kamchatka.
- ASSOCIATUS (*Pseudoniphargus*) Sanchez, 1990. Tenerife, Canary Isl.

- ATLANTICA (*Bogidiella*) Sanchez, 1991. W. Canary Isl.
- AULICUS (*Niphargus*) Karaman, 1991. N. Dalmatia, Croatia.
- BARBARAE (*Americorchestia*) Bousfield, 1991. Texas.
- BARNARDI (*Lembos*). Ortiz & Nazabal, 1988. Cuba.
- BERGAE (*Haplogynglymus*). Pretus & Sabater, 1990. Catalonia, NE Spain.
- BISAETA (Hyale). Kim & Kim, 1991. Ulreung Isl., S. Korea.
- BOROWSKYAE (*Jassa*) Conlan, 1990. Br. Columbia.
- BOUSFIELDI (*Carinobatea*) Ortiz, 1991. W. coast Florida.
- BOUSFIELDI (*Metopella*) Tzvetkova & Golikov, 1990. Laptev Sea, Siberia.
- BOWMANI (*Phronima*) Shih, 1991. Eastern tropical Pacific.
- BRACHYCLADUS (*Ampelisca*) Roney, 1990. Southern California.
- BREVISPINA (*Maera*) Kim & Kim, 1991. Ulreung Isl., S. Korea.
- BROCHA (*Netamelita*) Thomas & Barnard, 1991. Florida Keys.
- BRUCEI (*Paradicaprella*) Hirayama, 1990. N. Caledonia.
- CAMPI (*Carinobatea*) Ortiz, 1991. West coast Florida.
- CANARIENSIS (*Ingolffiella*) Vonk & Sanchez, 1991. Tenerife, Canary Isl.
- CANDELARIAE (*Pseudoniphargus*) Sanchez, 1990. Tenerife, Canary Isl.
- CARLTONI (*Jassa*) Conlan, 1990. California
- CERNUA (*Tuluweckelia*) Holsinger, 1990. Yucatan, Mexico.
- CHIAPENSIS (*Caribotroides*) Lindeman, 1990. Chiapas, Mexico.
- CHIONOECETOPHILA (*Podoceroopsis*) Conlan, 1983. Oregon, USA.
- CONCINNA (*Caprella*) Mateus & Mateus, 1991. Cap Verde Isl.
- CONVEXA (*Urothoe*) Kim & Kim, 1991. Channam, S.Korea.
- CURVIDACTYLOIDES (*Scina*) Zeidler, 1990. Western North Pacific.
- CYPRIA (*Bogidiella*) Karaman, 1989. Cyprus.
- DELAMAREI (*Metacrangonyx*) Messouli, Boutin & Coineau, 1991. Oued Dades, Haut Atlas, Morocco.
- DENTATA (*Gondogeneia*) Alonso, 1986. Santa Cruz, Argentina.
- DENTICULUS (*Paranamixis*) Kim & Kim, 1991. Ulreung Isl., S. Korea
- DENTIPALMA (*Ventojassa*) Kim & Kim, 1991. Ulreung Isl., S. Korea
- DIABOLUS (*Tectovalopsis*) Barnard & Ingram, 1990. 12°48'N, 103°56'W, vent areas.
- DOMINICA (*Gitana*) Thomas & Barnard, 1990. Dominica, Caribbean.
- DORSOSETOSUS (*Gammarus*) Mateus & Mateus, 1990. SE Turkey.
- DRACOSPIRITUS (*Ingolffiella*) Griffiths, 1989. Namibia.
- DULCICOLA (*Melita*) Stock & Vonk, 1990. La Gomera, Canary Isl.
- DUNBARI (*Phronima*) Shih, 1991. Eastern tropical Pacific.
- DUPLOCOXA (*Vicmusia*) Just, 1990. Bass Strait, Australia.
- ELLISI (*Gammaropsis*) Conlan, 1983. British Columbia.
- ENTRICHOMA (*Ensayara*) Gable & Lazo-Wasem, 1990. Bermuda.
- EOUSIDES (*Anonyx*) Steele, 1991. Okhotsk Sea.
- EPIGAEA (*Palmorchestia*) Stock, 1990. La Palma, Canary Isl.
- EXIGUUS (*Thalassostygius*) Vonk, 1990. Curacao.
- EXOSPINA (*Scina*) Zeidler, 1990. Western N. Pacific.
- FASTIDIOSA (*Ampithoe*) Mateus & Mateus, 1991. Cap Verde
- FENWICKI (*Jassa*) Conlan, 1990. Snares, N. Zealand.
- FLAVISCUTATUS (*Platycyamus*) Waller, 1989. ?
- FORSBERGHII (*Amatiguakius*) Coleman & Barnard, 1991. Aleutian Isl.
- FUSILUS (*Tectovalopsis*) Barnard & Ingram, 1990. off W. Mexico, vent area.
- GLABRA (*Caprella*) Aoki, 1991. W. Kyushu, Japan.
- GLANDULATUS (*Eoniphargus*) Stock & Jo, 1990. S. Korea.

- GLUTONIS (*Hirondellea*) Barnard & Ingram, 1990. 13°N rift, vent area.
- GOBABIS (*Ingolfiella*) Griffiths, 1989. Namibia.
- GOMERI (*Orchestia*) Stock, 1989. La Gomera, Canary Isl.
- GOSEMA (*Pseudocyphocaris*) Lowry & Stoddart, 1990. Madang lagoon, Papua NG.
- GOULMIMENSIS (*Metacrangonyx*) Messouli, Boutin & Coineau, 1991. Goulmima, Morocco.
- GREBNITZKII (*Anonyx*) Steele, 1991. Bering Island.
- GRIFFINI (*Wandin*) Lowry & Stoddart, 1990. Great Barrier Reef.
- GRUBERI (*Dikerogammarus*) Mateus & Mateus, 1990. SE Turkey.
- GRUNERI (*Jassa*) Conlan, 1990. Tasmania.
- GUADALUPENSIS (*Floresorchestia*) Ciavatti, 1989. Guadeloupe, Caribbean.
- GURJANOVAE (*Metopa*) Tzvetkova & Golikov, 1990. Laptev Sea.
- GUYOTI (*Hirondellea*) Barnard & Ingram 1990. Hess Guyot, vent area.
- HANAMURAI (*Paramoera*) Hirayama, 1990. Hokkaido, Japan.
- HARTMANNAE (*Jassa*) Conlan, 1990. The Snares, N. Zealand.
- HEARDI (*Americorchestia*) Bousfield, 1991. Mississippi, USA.
- HETEROSTEGOS (*Apotectonia*) Barnard & Ingram, 1990. Galapagos Vents.
- HONGKONGENSE (*Corophium*) Hirayama, 1986. Hong Kong.
- HOONSOOI (*Podocerus*) Kim & Kim, 1991. Ulreung Isl., S. Korea
- HOSHINOI (*Melita*) Yamato, 1990. Seto Inland Sea, Japan.
- HURLEYI (*Scina*) Zeidler 1990. Western North Pacific.
- HWANGHAENSIS (*Liljeborgia*) Kim & Kim, 1990. Yellow Sea, Korea.
- HYLORAINA (*Cerrorchestia*) Lindeman, 1990. Monteverde, Costa Rica.
- INCIDERIS (*Gammaropsis*) Lyons & Myers, 1991. Gulf of Aqaba, Red Sea.
- INCONDITUS (*Pseudoniphargus*) Karaman & Ruffo, 1989. Sicilia, Italy
- INOPINATUS (*Gammarus*) Mateus & Mateus, 1990. Near Istanbul, Turkey.
- ITALICUS subsp. (*Pseudoniphargus africanus*) Karaman & Ruffo, 1989. Sicilia, Italy.
- JADRANKA subsp. (*Niphargus rejici*) Sket & Karaman 1990. Krk, Croatia.
- JANSTOCKI (*Carinomelita*) Bousfield, 1990. Hawaii.
- JAYNEAE (*Haustorius*) Foster & Lecroy, 1991. Northern Gulf of Mexico.
- JUSTI (*Jassa*) Conlan, 1990. Macquarie Isl., subantarctic.
- KAIKAI (*Orchomene*) Bellan-Santini, 1990. 35°N, 142°E, deep water.
- KARUKARAE (*Tethorchestia*) Ciavatti, 1989. Guadeloupe, Caribbean.
- KERAKAE (*Lysianassa*) Lyons & Myers, 1991. Gulf of Aqaba, Red Sea.
- KINGELEPHA (*Thaumatesonella*) Rauschert & Andres, 1991. S. Shetland Islands.
- KOMINATOENSIS (*Caprella*) Takeuchi, 1986. Chiba, Japan.
- KOREANUS (*Ceradocus*) Kim & Kim, 1989. Pusan, S.Korea.
- KOREANUS (*Elasmopus*) Kim & Kim, 1991. Ulreung Isl., S. Korea.
- LACERTOSA (*Maera*) Mateus & Mateus, 1991. Cap Verde.
- LAETIFUCATUS (*Coboldus*) Just, 1990. Barbados, W. Indies.
- LEFKODEMONAKI (*Niphargobates*) Sket, 1990. Kreta, Greece.
- LEPIDA (*Synurella*) Mateus & Mateus, 1991. Turkey.
- LOBATA (*Dulzura*) Stock & Vonk, 1991. Cap Verde.
- LOBATA (*Pseudocyphocaris*) Lowry & Stoddart 1990. Madang lagoon, Papua NG
- LOBIFERUS (*Liagoceradocus*) Stock & Iliffe, 1991. Solomon Islands.
- LONGICAUDUS (*Uronyctus*) Stock & Iliffe, 1990. Mt. Gambier, W. Australia.
- LONGIDACTYLA (*Guernea*) Hirayama, 1986. Hong Kong.

- LONGIDACTYLUS (*Eohaustorius*) Jo, 1990. Chungnam, S. Korea
- LOWRYI (*Shoemakerella*) Gable & Lazo- Wasem, 1990. Bermuda.
- MACINERINEYI (*Photis*) Conlan, 1983. British Columbia
- MACKIEI (*Guerneia*) Hirayama, 1986. Hong Kong.
- MACRODACTYLA (*Cheirimedeia*) Conlan, 1983. St. Lawrence Isl., Alaska.
- MAGELLANICA (*Curidia*) Coleman & Barnard, 1991. Magellan Straits, S. America.
- MARGULISAE (*Pleusymtes*) Tzvetkova & Golikov, 1990. Laptev Sea.
- MESSANAI (*Niphargus*) Karaman, 1989. Tuscany, Italy.
- MIAE (*Gammarus*) Mateus & Mateus, 1980. Iran.
- MIOSPINULOSUM subsp. (*Corophium sextonae*) Hirayama, 1986. Hong Kong.
- MONDLANEI (*Gammaropsis*) Ortiz, 1990. Mozambique
- MORINOI (*Jassa*) Conlan, 1990. Japan
- MORTONI (*Corophium*) Hirayama, 1986. Hong Kong
- MURIVAI (*Colomastix*) Myers, 1990. Rarotonga, Cook Isl.
- MYERSI (*Jassa*) Conlan, 1990. California.
- MYTILUS (*Euonyx*) Barnard & Ingram, 1990. Galapagos Vents.
- NEBULOSUS (*Tectoalopsis*) Barnard & Ingram, 1990. Jasper Seamount, vent area.
- NEWTONI (*Caribotroides*) Lindeman, 1990. Oaxaco, Mexico.
- OCLAIRI (*Jassa*) Conlan, 1990. Amchitka Isl., Alaska.
- ODETTAE (*Gammarus*) Mateus & Mateus, 1990. Central Turkey
- OLIGOCHAETA (*Photis*) Conlan, 1983. British Columbia.
- ORUBRAEDON (*Cyamus*) Waller, 1989. ?
- OXICARINATA (*Epimeria*) Coleman, 1990. 61°S, 56°W,
- PACHYDACTYLA (*Photis*) Conlan, 1983. British Columbia.
- PAGETI (*Gammarus*) Mateus & Mateus, 1990. E. Turkey.
- PANINI Gurjanova nom. nud. (*Harpinia*) Tzvetkova & Golikov, 1990. Laptev Sea.
- PAREOUS (*Anonyx*) Steele, 1991. Okhotsk Sea
- PARVIDOUS (*Photis*) Conlan, 1983. British Columbia.
- PATAGONICA (*Gondogeneia*) Alonso, 1986. Santa Cruz, Argentina.
- PECKI (*Caribotroides*) Lindeman, 1990. Oaxaca, Mexico.
- PECTENCORONATAE (*Niphargus*) Sket & Karaman, 1990. Dalmatia, Croatia.
- PETRAE (*Liljeborgia*) Lyons & Myers, 1991. Gulf of Aqaba, Red Sea.
- PLUMIPES (*Gammarus*) Mateus & Mateus, 1990. Iran.
- POLYNESICA (*Fallotritella*) Müller, 1990. Bora Bora, Society Islands.
- PRETZMANNI (*Gammarus*) Mateus & Mateus, 1990. Iran.
- PSEUDEOUS (*Anonyx*) Steele, 1991. Cape Lisburne, Alaska.
- PTERISCHIUS (*Lemboides*) Lyons & Myers, 1990. Gulf of Aqaba, Red Sea.
- PULCHRA (*Epimeria*) Coleman, 1990. 61°S, 45°W.
- QUADRIDENTATA (*Melita*) Yamato, 1990. Seto Inland Sea, Japan.
- REGELATUS (*Tectoalopsis*) Barnard & Ingram, 1990. Hess Guyot, vent area.
- RHEOPHILUS (*Rhipidogammarus*) Stock & Sanchez, 1990. Tenerife, Canary Isl.
- RUBRIQUES (*Epimeria*) De Broyer & Klages, 1991. Weddell Sea, Antarctic.
- RUFFOI (*Metacrangonyx*) Messouli, Boutin & Coineau, 1991. Azib Asseln, Morocco.
- SABULONIS (*Metaniphargus*) Vonk, 1991. Cayman Isl., Caribbean.
- SAFIAE (*Leucothoe*) Lyons & Myers, 1991. Gulf of Aqaba, Red Sea.
- SALOMANI (*Americorchestia*) Bousfield, 1991. W. Florida, USA
- SARDOUS (*Tyrrhenogammarus*) Karaman & Ruffo, 1989. Sardinia, Italy.
- SETOSA (*Podoceropsis*) Conlan, 1983. Aleutian Islands.
- SETULOSUS (*Eohaustorius*) Jo, 1990. Pusan, S. Korea.

- SHAWI (*Jassa*) Conlan, 1990. British Columbia.
- SHOEMAKERI (*Gammaropsis*) Conlan, 1983. British Columbia.
- SHOEMAKERI (*Metopa*) Tzvetkova & Golikov, 1990. Laptev Sea.
- SIMILICARPA (*Cheirimedeia*) Conlan, 1983. British Columbia.
- SIMILIS subsp. (*Niphargus galvagni*) Karaman & Ruffo, 1989. Italian Alps.
- SINEPLUMOSA (*Sunamphitoe*) Kim & Kim, 1991. Ulreung Isl., S. Korea.
- SINICA (*Bogidiella*) Karaman & Sket, 1990. Zhuang AR, China.
- SKETI (*Gammarus*) Karaman, 1989. Lake Ohrid, Montenegro.
- SLATTERYI (*Jassa*) Conlan, 1990. California.
- SOMBATI (*Guernea*) Hirayama, 1986. Hong Kong.
- SPINIGERUS (*Eohaustorius*) Jo, 1990. Chungnam, S. Korea.
- SQUAMOSA (*Hyaella*) Mateus & Mateus, 1990. Guadeloupe, W. Indies.
- STAUDEI (*Jassa*) Conlan, 1990. British Columbia.
- STOCKI (*Bogidiella*) Karaman, 1990. Sinai peninsula, Egypt.
- STOCKI subsp. (*Hadzia fragilis*) Karaman, 1989. NE Italy.
- STOCKI (*Jerbarnia*) Thomas & Barnard, 1990. Great Barrier Reef.
- STOCKI (*Maera*) Mateus & Mateus, 1991. Cap Verde.
- STOCKI (*Orchestia*) Ruffo, 1990. Gran Canaria, Canary Isl.
- STOCKI (*Orchomene*) Bellan- Santini, 1990. 13°N, 59°W, deep water.
- STOCKI (*Pontogeneia*) Hirayama, 1990. Fukushima pref., Japan.
- STOCKI (*Psammogammarus*) Vonk, 1990. Tenerife, Canary Isl.
- SULFURIS (*Ventiella*) Barnard & Ingram, 1990. Galapagos Rift, vent area.
- TABACI (*Netamelita*) Thomas & Barnard, 1991. Belize, C. America.
- TAIHUENSIS (*Grandidierella*) Morino & Dai, 1990. Taihu, Wuxi, China.
- THURSTONI (*Jassa*) Conlan, 1990. S. Orkney Isl., subantarctic.
- TORRENTICOLA (*Bogidiella*) Pretus & Stock, 1990. Mallorca, Spain.
- TORRENTIS (*Transtectonia*) Barnard & Ingram, 1990. 13°N 104°W, vent area.
- TRIANGULOPEDARUM (*Corophium*) Hirayama, 1986. Hong Kong.
- TRIDENTIUM (*Corophium*) Hirayama, 1986. Hong Kong.
- TROPHERUS (*Photis*) Thomas & Barnard, 1991. Dominica, West Indies.
- TUCUMANENSIS (*Bogidiella*) Grosso & Fernandez, 1985. Tucuman, Argentina.
- TUXTLENSIS (*Caribotroides*) Lindeman, 1990. Vera Cruz, Mexico.
- TYPHODES (*Diatectonia*) Barnard & Ingram, 1990. Hamilton Guyot, vent area.
- TZVETKOVAE (*Paraeurystheus*) Conlan, 1983. Aleutian Isl.
- ULREUNGENSIS (*Podocerus*) Kim & Kim, 1991. Ulreung Isl., S. Korea.
- UNCIFERUS (*Liagoceradocus*) Stock & Iliffe, 1991. Fiji.
- VALEDICTUS (*Echinogammarus*) Pinkster & Platvoet, 1990. Algeria.
- WARRAINA (*Iphimedia*) Thomas & Barnard, 1991. S. Australia.
- WEGENERI (*Tectoalopsis*) Barnard & Ingram, 1990. 13°N, 104°W, vent area.
- WILLIAMSONI (*Cheiriphotis*) Salman & Jabbar, 1990. Iraq.
- XESTA (*Iphimedia*) Thomas & Barnard, 1991. Madang, Papua NG
- ZORA (*Iphimedia*) Thomas & Barnard, 1991. Florida Keys, USA.

SYSTEMATIC INDEX TO NEW AMPHIPOD GENERA AND SPECIES IN AN 11-19

Wim Vader

This list covers all new taxa indexed in AN 18, plus those described in papers listed in AN 19; the latter are marked (19) in the list. New genera are written with capitals.

For the sake of easy reference, the present list follows the taxonomy of the recent handbook by Barnard & Karaman (1991), even where more recent revisions have changed the picture. Thus the Corophioidea, Eusiridae, Iphimediidae and Lysianassoidea are here all treated 'sensu lato', as in the handbook. For the gammaroid complex, the earlier handbook by Barnard & Barnard (1983) has been used with the following, admittedly quite arbitrary headings: Anisogammaridae, Artesiidae, Bogidiellidae, 'greater Ceradocus group' (IX A in Bnd & Bnd), cheirocratids (VIII), crangonyctoids, gammaroids (III minus Pontoporeiidae), Gammaroporeiidae, 'Hadzia-Weckelia group' (IX D), Melitidae (IX E 1,2), Mesogammaridae, 'niphargids' (IX E 3-4), Pontoporeiidae, and Salentinellidae. (A few 'hard nuts' are placed as 'incertae sedis' with the gammaroids.). The other suborders have much fewer new taxa, so have been treated practically without subdivision, although the Cyamidae have been kept apart.

It is virtually impossible to satisfy everybody with a list like this one. I can see clear shortcomings myself:

- 1) New families and new subgenera are not included here (Subspecies have been treated as species).
- 2) Only new taxa are listed, not i.a. those spp that have been transferred from one genus to another.
- 3) This list can only be used together with the alphabetic indexes in AN 18 and 19, and only used properly in conjunction with the bibliographies in earlier newsletters.
- 4) The list is uncritical. In all cases the judgement of the original authors has been followed, even where this deviates from the verdict of the B & K- handbook.

It is my intention from now on to publish a similar systematic index in each issue of AN, if there is interest for that. I shall therefore be most grateful for all critical comments and suggestions for improvement.

Ampeliscidae

Ampelisca acutidentata, armoricana, ballina, bicarinata, bidura, brachycladus (19), burkei, calooma, careyi, dallenei, dimboola, e rythrorhabdota, euroa, fageri, hawaiiensis, hessleri, jingera, karamani, lenoldii, macrodonta, melaniensis, melitae, monoculata, monodi, narooma, nossibeensis, parapacifica, paria, remora, spooneri, tilpa, toora, toulemonti, verga, yuleba.
Byblis bega, frigidus, gerara, gloriosae, inaequicornis, mildura, robustus, tinamba.
Byblisoides cubensis, plumicornis
Haploops fundiensis, oona.

Amphilochidae

AFROGITANOPSIS
Amphilochus casahoya, delacaya, pillaii, ruperti
Gitana dominica (19), gracilis
Gitanopsis baciroa, breviculus, japonica, laguna, longus, petulans, robustodentes, tai,? tenuipes
PARAMPHILOCHUS parachelatus
ROSTROGITANOPSIS

Ampithoidae

Ampithoe brevipalma, dentimana, fastidiosa (19), guaspere, hirsuta, kaneohe navosa (sub *Pleonexes*), kava, koreana, kuala, maxillisius, nobrei, plumicornis, sectimanus, spuria, tahue, vacoregue, youngsanensis
Cymadusa grossimana, lunata, pilipes
Examphithoe (MELANESIUS) cooki, gracilipes
Paradusa bilobata, pilipes
PERAMPHITHOE baegryeongensis, lessoniophila, namhaensis
PLUMITHOE (19)
PSEUDOPLEONEXES
Sunamphitoe sineplumosa (19)

Anamixidae

Anamixis barnardi
Paranamixis aberro, denticulus (19), madagascarensis

Anisogammaridae*Anisogammarus madyensis***ANNANOGAMMARUS****BARROWGAMMARUS****CARINEOGAMMARUS***Eogammarus oclairi*, psammophilus**JESOGAMMARUS** fluviatilis, hokurikuensis, naritai, paucisetulosus, spinipalpus, suwaensis.**LOCUSTOGAMMARUS** levingsi**RAMELLOGAMMARUS** vancouverensis**SPASSKOGAMMARUS** tzvetkovae**Artesiidae****ARTESIA** subterranea**Bateidae***Carinobatea bousfieldi* (19), campi (19)**Biancolinidae***Biancolina* (obtusata) sachalinensis**Bogidiellidae****ACTOGIDIELLA** cultrifera**AEQUIGIDIELLA** aquilifera**AFRIDIELLA** messanai, pectinicauda*Bogidiella* antennata, aprutina, aquatica (19), arganoides, atlantica (19), balearica, calicali, capia, cerberus, chitalensis, convexa, cooki, cypria (19), cyrnensis, deharvengi, gammariformis, glabra, hamatula, hispanica, horcomollensis, italica, mexicana, nicolae, nubica, paolii, paraichnusae, perla, prionura, purmamarcensis, purpuriae, ringueleti, sarawacensis, serbica, silverii, sinica (19), sketi, spatulata, talampuyensis, thai, torrenticola (19), tucumanensis (19), tyrrhenica, uncinata, uniramosa, virginalis**EOBOGIDIELLA****HEBRAEDIGIDIELLA** bromleyana**MAGHREBIELLA** maroccana**MARIGIDIELLA** crassipes**MARINOBGIDIELLA****NUBIDIGIELLA****PARABOGIDIELLA** americana**SOMAGIDIELLA****Ceinidae****AUSTROCHILTONIA** (revived)**Cheidae****CHEUS** annae**Greater Ceradocus group****ANAMAERA** hixonii**ANIMOCERADOCUS***Ceradocus* crenatipalma, inermis, koreanus, mahafalensis, oxyodus, tattersalli, woorrea, yondala**COXOMAERELLA** pirloti*Elasmopus* alalo, balkomanus, bampo, crenulatus, integer, koreanus (19), lapu, mayo, ocoroni, rishikondiensis, seticarpus, spinicarpus, spinipalpus, spinipes, temori, tiburoni, tubar, visakhapatnamensis, waltersi, zoanthidea**LUPIMAERA***Maeraaequimana*, anocolata, atlantica, brevispina (19), chinarra, excavata, gloriosae, griffini, lacertosa (19), leopoldinae, lindsae, mooreana, multispinosa, pedonculata, pseudomarginata, reishi, stocki (19)*Mallacoota* bahara, latidactylus, nananui, schellenbergi, subinsignis**MEGACERADOCUS** gigas*Meximaera* sinuata*Paraceradocus* gibber, ramulus, stenepimerus, trispinosus*Parelasomopus* mallacootaformis, zelei*Quadrivisio* bousfieldi, lobata

cheirocratids**AUROHORNELLIA***Cheirocratus armatus, bassi, praedens, spinibasus, unidentatus***DEGOICHEIROCRATUS spani***Gibberulus devaneyi, falciformis**Hornellia atlantica, tequestae***INCRATELLA (= INDOCRATUS)***Jerbarnia americana, aquilopacifica, stocki (19), tridentata**Maerella ledoyeri**Megaluropus excavatus, myersi**Melphidippa linea**Melphisana madagascarensis***MELPHISUBCHELA subprehenda***Metaceradocus bidentatus, ? inermis***PROSOCRATUS butcheri****RESUPINUS coloni, spinicaudatus****Colomastigidae***Colomastix armata, azumai, brevicornis, cornuta, inaequicornis, janiceae, laminosa (19), murivai**(19), plumosa, prionotos (19), spinosa, truncatipes**Yulumara armadillicta, tricuspis***Condukiidae****CONDUKIUS karkan***? OTAGIA***Corophioidea****AETIOPEDES gracilis****AFRICOECETES****ANONYCHOCHEIRUS richardsoni***Aora adpressa, hebes, hircosa, pseudotypica**Aorcho gracilipes, nanus***AORELLA multiplex***Aoroides exilis, inermis, intermedius, pseudotypica***AUSTRALOECETES jervidis****AUSTRALOMICRODEUTOPUS****BARACUMA alquirta***BEMLOS arkooolus, bidens, (ephippium) disjuncta, dolichomanus, ephippium, gilgi, mollis, strigilis, tridentatus, tris, trudis.**Bonnierella dimorpha***BORNEOECETES wongi****BUBOCOROPHIUM***CARIBBOECETES barbadensis, crassicornis, intermedius, jenikarpae, magellani, pteryicornis, squamiferus.***CENTRALOECETES***Cerapus benthophilus, erae, fallohideus, harfootus, oceanicus, pacificus, stoorus***CHAETOCOROPHIUM***Cheirimedeia macrodactyla**Cheiriphotis madagascarensis, mediterranea, minima, rotui, williamsoni***COLUMBAORA cyclocoxa***Concholestes omani***COROCUBANUS guitarti****DODOPHOTIS***Erichthonius coxacanthus, fasciatus, latimanus, punctatus, stephenseni, tacitus**Gammaropsis aculeata, arawakia, crenulata, deseadensis, dilatata, ellisi (19), emancipata, incideris (19), insignis, latipalma, longipropodi, modianeii (19), nantis, pseudodenticulata, shoemakeri (19), sutherlandii, ulrici, (atlanticus) varius***GLOBOSOLEMBOS lunatus***Grandidierella exilis, indentata, insulae, longidactylus, propodentata, taihuensis (19), teres, vietnamica.**Haplocheira plumosa**Jassa alonsoae (19), borowskyae (19), carltoni (19), fenwicki (19), gruneri (19), hartmannae (19), justi (19), morinoi (19), myersi (19), oclairi (19), shawi (19), slatteryi (19), socia (19), staudei (19), thurstoni (19).**Kamaka palmata*

Konatopus latipalma, *tulearensis*
Kuphocheira emancipata
Lemboides caecus, *pterischium* (19)
Lembos achire, *aoraformis*, *barnardi*, *chiltoni*, *clavatus*, *denticarpus*, *habanensis*, *hippocrenes*, *mayensis*,
ovalipes, *ovatus*, *pertinax*, *regius*, *saloteae*, *spinimerus*, (*denticulatus*) *taparum*, *tehuecos*, *tempus*,
tiafaui, *tigrinus*, *tui*, *virgus*.
Leptocheirus dufresni, *rhizophorae*
LIOCUNA caeca
?obliquimana
MERIDIOLEMBOS
Microjassa chinipa
Neohela intermedia
Neomegamphopus heardi, *hiatus*, *kalanii*, *pachiatius*
PAGURISAEA scombrii
PARACERAPUS
Paracorophium chelatum, *chilense*, *hartmannorum*
Parajassa andromedae, *bidentata*, *spinipalma*
PARAMICRODEUTOPUS
PAREURYSTHEUS amakusaensis, *gurjanovae*, *latipus*, *tzvetkovae* (19).
PEDICOROPHIUM
Photis albus, *beringiensis*, *cavimana*, *japonica*, *lamina*, *macinerineyi* (19), *macromana*, *nigrocula*,
oligochaeta (19), *pachydactyla* (19), *parvidous* (19), *phaeocula*, *pirloti*, *pollex*, *tropherus* (19).
PLESIOLEMBOS
Podoceropsis amchitkensis (19), *angustimana* (19), *chionoecetophila* (19), *setosa* (19).
POLYNESOECETES kekeae
POSOPHOTIS seri
PROTOLEMBOS arinyas, *drummondæ*, *murrarum*, *varanus*
Protomedeia crudoliops
Pseudischyrocerus crenatipes
Pseudomegamphopus chelatus, *pseudochelatus*
PSEUDOPHOTIS ariakensis
RAKIROA rima
RHINOECETES
Siphonoecetes arabicus, *exolitus*, *kroyeranus*, *neapolitanus*, *striatus*
STEBBINGOECETES
STENOCOROPHIUM bowmani
TETHYLEMBOS
Unciola integripleura
Unciolella articulata
VAROHIOS topianus
Ventojassa crenulata, *dentipalma* (19)
Xenocheira ?angusticarpa, *pirloti*
ZOEDEUTOPUS cinaloanus

crangonyctoids

ANTIPODEUS franklini
AUSTROCRANGONYX
AUSTROGAMMARUS multispinatus, *saycei*, *spinatus*
Crangonyx aberrans
DUSSARTIELLA madegassa
Paramelita flexa
SANDRO
Sternophysinx alca
Stygobromus canadensis, *quatsinensis*, *secundus*
STYGONYX courtneyi
Synurella lepida (19), (*coeca*) *rafalskii*
TASNIPHARGUS tyleri
Uroctena affinis
URONYCTUS (19) *longicaudus* (19)
WESNIPHARGUS
YULIA

Cyproideidae

Austropheonoides splendens, *truganini*
Cyproidea liodactyla, *marmorata*
Moolapheonoides angustipes, (*coocoo*) *seraa*
TEREPELTOPES dolichorhunia

Dexaminidae

Atylus brevitarsis, *megalops*, *tulearensis*, *urocarinatus*
DEXAMINOCULUS (= *Sphaerophthalmus*) *acutipes*, *cavimana*
Guerneae ezoensis, *longicornis*, *longidactyla* (19), *mackiei* (19), *magnaphilostoma*, *minor*, *nullispina*,
rectocephala, *sombati* (19), *spenicornis*, *tenuipes*, *terelamine*, *tomiokaensis*.
HAUSTORIOPSIS *brevispinis*, *latipes*
Lepechinella grimi, *helgii*, *madagascarensis*, *skarphedini*
LEPECHINELLOIDES *karii*
LEPECHINELLOPSIS *brevicaudata*, *inaequicaudata*
Paradexamine bisetigera, *excavata*, *gigas*, *micronesica*, *rewa*, *setigera*
Paralepechinella longicornis
Polycheria amakusaensis, (*atolli*) *orientalis*
SEBADEXIUS *neocaledoniensis*

Didymocheliidae

Didymochelia edwardi

Dogielinotidae

DOGIELINOIDES *golikovi*
EOHAUSTORIOIDES
Haustorioides gurjanovae, *indivisus*, *koreanus*, *latipalpus*, *magnus*, *nesogenes*
PROBOSCINOTUS

Eophliantidae

Bircenna dronga

Eusiridae s.l.

ABDIA
Apherusa vexatrix
Atylopsis fragilis, *procerus*
Bathyschraderia fragilis
CALLIOPIURUS *excellens*
Cleonardo brevipes
Eusiroides aberrantis, *dentimerus*, (*monoculoides*) *japonicus*, *yucatanensis*
Eusirus crosnieri, *latirostris*, *propeperdentatus*
DAUTZENBERGIA
Gondogeneia dentata (19), *patagonica* (19), *thurstoni*
Halirages caecus
MANEROGENEIA
MEMBRILOPUS
NASAGENEIA *yucatanensis*
Oradarea ? *scissicaudata*
Paramoera hanumarai (19), *incognita*, *stephensi*
Pontogeneia opata, *stocki* (19)
RELICTOMOERA
Rhachotropis arii, *gislii*, *gloriosae*, *schellenbergi*, *thordisae*, *thorkelli*
STERNOMOERA
Tethygeneia cavitelson
WHANGARUSA

Exoedicerotidae

METOEDICEROPSIS *dadoensis*
Patuki roperi
VADOSIAPUS *copacabanus*
WARREYUS

'gammaroids'

*ABLUDOGAMMARUS**Accubogammarus* (algor) jalzici*BAKU**Carinurus* amentatus, bazikalovae, bifrons*CEPHALOGAMMARUS**Chaetogammarus* oliviiiformis*CONDICIOGAMMARUS**Dikerogammarus* gruberi (19)*Echinogammarus* antalyae, cyrtus, dactylus, pseudoaquilifer, pungentioides, valedictus (19)*Gammarus* belli, caparti, chimkenti, desperatus, dorsosetosus (19), galgosensis, (songirdaki) hissari, hongyuanensis, hoonsooi, inopinatus (19), (sobaeensis) kimi, lasaensis, ledoyeri, leopoliensis, longipedis, lychnidensis, (sobaeensis) marginalis, miae (19), odaensis, odettae (19), orinos, oronticus, pageti (19), parechiniformis, plumipes (19), pretzmanni (19), pseudanatoliensis, salemaai, shanxiensis, sketi(19), solidus, songirdaki, soyoensis, stupendus, vignai, zeongogensis.*JUBEOGAMMARUS**KUZMELINA**LANCEOGAMMARUS**LAUROGAMMARUS**LUSIGAMMARUS**PALICARINUS**PALLASIOLA**PSEUDACANTHUS**RELICTACANTHUS**Rhipidogammarus* nivariae, rheophilus (19), triumvir, variicauda*Sarothrogammarus* contiguus*TADZHIKISTANIA**TURCOGAMMARUS**TYRRHENOGAMMARUS* (19) sardous (19)*YOGMELINA* limana

incertae sedis

Eoniphargus glandulatus (19)*GAMMAROPISA* arganoi*SENSORATOR* valentiensis

Gammaroporeiidae

GAMMAROPOREIA

Hadzia-Weckelia group

*AFROCRANGONYX**ALLOTEXIWECKELIA* hirsuta*APOWECKELIA* serrata*BAHADZIA* latipalpus, obliqua, setimana, stocki, williamsi*CRANGOWECKELIA* mixta, spinicauda*Dulzura* gal, lobata (19), paucispinosa*FIHA* schminkei*Hadzia* (fragilis) drinensis, pachypoda, (fragilis), stocki (19)*HOLSINGERIUS**Liagoceradocus* acutus, dentiferus, lobiferus (19), unciferus (19)*LONGIPODACRANGONYX**Metacrangonyx* aroundanensis (19), delamarei (19)

gineti, goulminensis (19), ruffoi (19), sinaicus

Metahadzia adriatica, helladis, uncispina*Metaniphargus* anchihalinus, bullipes, chaetodactylus, craterensis, crenatus, haitianus, hyporheicus, juberthiei, longidactylus, ortali, plumicauda, sabulonis (19), spinicauda, venezolanus*PACHYPODACRANGONYX* maroccanus*PARAMEXIWECKELIA**PARHADZIA* sbordonii*PHREATOMELITA* paeae*PINTOWECKELIA* grandis*PYGOCRANGONYX* repens*QUADRUS* vagabundus

RADOWECKELIA brevicauda
SRIHA
TEXIWECKELIA insolita, samacos
TEXIWECKELIOPSIS
THALASSOSTYGIUS (19) exiguus (19)
TULUWECKELLA (19) cernua (19)
ZHADIA subantarctica
ZOMBIWECKELIA parvipalpus

Haustoriidae

Acanthohaustorius bousfieldi, pansus, similis, uncinus
Eohaustorius longidactylus (19), setulosus (19), spinigerus (19), stocki (19), subulicola, tandeensis
Haustorius jayneae (19)
Lepidactylis triarticulatus
Parahaustorius obliquus
Protohaustorius bousfieldi

Hyalellidae

Hyalella paramoensis, squamosa (19)

Hyalidae

Hyalé barbicornis, bidentata, bisaeta (19), canalina, corallinacola, darwini, didendactyla, (galateae) distorta, gopaldaswamyi, guasave, inermis, ishigakiensis, punctata, punila, uragensis, yaqui, zuague
Lelehua malevua
Parallorchestes asiaticus (19)
Parhyale basrensis, explorator, multispinosa

Ipanemidae

IPANEMA talpa

Iphimediidae s.l.

Acanthonotozoma dunbari, gurjanovae, magnum, sinuatum
Acanthonotozomella barnardi
ACANTHONOTOZOMOPSIS pushkini
Amathillopsis comorensis, septemdentata
AMATIGUAKIUS (19) forsberghii (19)
ANISOIPHIMEDIA
AUSTROREGIA
Coboldus laetifucatus (19)
CURIDIA debrogania, magellanica (19)
Cypsiphimedia edgari, mala
Echiniphimedia barnardi, gabriela, waegelei
Epimeria bispinosa, extensa, obtusa, oxicarinata (19), pulchra (19), rimicarinata, rubriques (19), truncata
Gnathiphimedia urodentata
Iphimedia brachygnatha, gibbula, imparilabia, magellanica, quasimodus, serratipes, vicina, warraina (19), xesta (19), zora (19)
Iphimediella acuticoxa, discoveryi, georgei, paracuticoxa
MERALDIA
Ochlesis carinatus
OCHLESODIUS spinicornis
Odius antarcticus
Parapanoploea recessa
Parepimeria minor
Pariphimedia incisa
POSTODIUS imperfectus
STEGOPANOPLAEA

Laphystiopsidae

Prolaphystiopsis latirostris

Leucothoidae

Leucothoe bidens, campi, ctenochasma, gavialis, laticoxa, (richiardi) macrodonta, nagatai, neptunea, orkneyi, procera, safiae (19), squalidens.

Liljeborgiidae

Idunella bowenae, nagatai, sketi

ISIPINGUS

Liljeborgia bousfieldi, dubia, enigmatica, gloriosae, hwanghaensis (19), mozambica, petrae (19), pseudomacronyx

Listriella bahia, carinata, dentipalma, mollis, orientalis, quintana, spinifera, titinga.

SEXTONIA (revived)**Lysianassoidea s.l.**

ACHERONIA pegasus

Acidostoma sarsi

Acontiosoma tuberculata

Ambasiopsis brevipes

Anonyx attenuatus, barrowensis, beringi, dalli, eousides (19), grebnitzkii (19), gurjanovae, hayashii, hurleyi, lebedi, orientalis, pareous (19), petersoni, pseudeous (19), schefferi, shoemakeri, simplex, stappersi, stebbingi, stegnegeri

APOTECTONIA (19) heterostegos (19)

Aristias nonspinus, stenopodus

Aroui hamatopodus

Bathycallisoma armata

BONASSA (19)

BRUUNOSA

CAECONYX (19)

CEDROSELLA

Cheirimedon (macrocarpa) americana (19), solidus

CICADOSA

CONCARNES (19)

CONICOSTOMA karta

COXIMEDON (19)

Cyphocaris cornuta, geysereensis

DARTENASSA (19)

DIATECTONIA (19) typhodes (19)

DISSIMINASSA (19)

DOUNIALELLA longichelata

DRUMMONDIA corinellae, parviramus

EKELOFIA

Ensayara dentarius, entrichoma (19), iara, jumane, microphthalma

ERIKUS dahli

Euonyx mytilus (19)

FALCANASSA (19)

FALKLANDIA

Figorella tasmanica

GALATHELLA

Glycerina teretis

GRONELLA (19)

Hippomedon benthedii, columbianus, hake, mamene, matikuku, rodericki, whero

? *Hippomedon* adentatus, brevicaudatus, denturus

Hirondellea glutonis (19), guyoti (19)

Ichnopus pseudoserricrus

KAKANUI punui

Kerguelenia antiborealis, macropoda, microphthalma

Lepidepecreella pamanzi

Lepidepecreum carinatum, infissum, madagascarensis, rometacarinatum

LEPIDURISTES

LUCAYARINA catacumba

Lysianassa caesarea, insperata, kerakae (19), (cinghalensis) latipes

Lysianopsis tieke

MACRONASSA (19)

MARTENSIA (19)

Normanion chevreuxi, *ruffoi*
Ocosingo fenwicki, *kussakini*
Orchomene aahu, *breviceps*, *hiata*, *kaikai* (19), *kryptopinguides*, *limodes*, *liomargo*, *orchospina*,
scotianensis, *stocki* (19), *tomioakaensis*
Orchomenella guillei
 ORCHOMENYX
Pachychelium nicholli, *schellenbergi*
Pachynus denticulatus, *pugilator*
 PARACHEVREUXIELLA *lobata*
Parambasia nui
Parawaldeckia angusta, *dabita*, *hirsuta*, *karaka*, *lowryi*, *mua*, *parata*, *pulchra*, *suzae*, *vesca*
 PARDIA
 PARSCHISTURELLA *simplex*
Psammonyx longimerus, *terranovae*
 PSEUDAMARYLLIS *nonconstricta*
 PSEUDOCYPHOCARIS *coxalis*, *gosema* (19), *lobata* (19)
 RIMAKOROGA
Schisturella parachelata
 SCOPOLOSTOMA
Scopelocheirus polymedus
 SEPTCARNES (19)
 SHEARDELLA *kapala*, *tangaroa*
 SHOEMAKERELLA *lowryi* (19)
Socarnes allectus
Socarnoides indentata
 STEPHONYX
Stomacontion hurleyi, *pungapunga*
 TECTOVALOPSIS (19) *diabolus* (19), *fusilus* (19), *regelatus* (19), *wegereri* (19)
Thrombasia incerta
Tmetonyx nardonis, *palpiserrata*
 TRANSTECTONIA (19) *torrentis* (19)
Trischizostoma denticulatum
Tryphosella longidactyla, *serans*, *simillima*
Uristes ?latipes
Valettia hystrix
 VALETTIETTA *cavernicola*, *gracilis*, *lobata*, *punctata*
 VENTIELLA (19) *sulfuris* (19)
Waldeckia elephas, *scrupulosa*
 WANDIN (19) *griffini* (19)
 WECOMEDON *similis*

Maxillipiidae

MAXILLIPIDES *laticarpus*
Maxillipius commensalis

'melitids'

ABLUDOMELITA
 ALLOMELITA
 ALSACOMELITA *semipalmata*
 ANCHIALELLA *vulcanella*
 CARINOMELITA (19) *janstocki* (19)
 CEPHALOPISELLA
 CONFODIOPISA
 DULICHIELLA (*revived*)
 DUMOSUS *atari*
Eriopisa inaquicaudata, *incisa*, *melitaformis*
Eriopisella chierегоi, *spinosa*
 FLAGITOPISA
 GINIPHARGUS
 HOHO *hirtipalma*
 IMPERTIOPISA
 JOSEPHOSELLA *andamana*, *hamata*
 MADAPISELLA

MALERIOPA

Melita alluaudi, bingoesis, dulcicola (19), elongata, ? excavata, hoshinoi (19), intermedia, leiotelson, longidactyla, longisetosa, mikulitschae, myersi, nagatai, persona, pilopropoda, plumulosa, quadridentata (19), setiflagella, sexstachya, simplex, stocki, unamoena

NAINALOA

Netamelita barnardi, brochi(19), tabaci (19)

NIPPOPISELLA

Psammogammarus caesicolus, initialis, longidactylus, scopulorum, stocki (19)

PSAMMOMELITA uncinata

ROROPISA

SPATHOPUS looensis

SPINIFEROPISELLA

TAGUA aporema

TEGANO**TUNISOPISA****VICITOPISA**

VICTORIOPIISA atlantica, (chilkensis) griffithsi, papice

Mesogammaridae

PARAMESOGAMMARUS americanus

Niphargidae (incl. *Pseudoniphargus*)

FORONIPHARGUS pori

Haploginglymus bergae(19), lobatus, mateusi

NIPHARGOBATES lefkodemonaeki (19), orophobata

Niphargus (strouhali) alpinus (19), arbiter, arcanus, armatus, aulicus (19), (tamaninii) barbatus, bodoni, caelestis, carcerarius, casimiriensis, (transitivus) dissonus, farroi, hercegovinensis, ictus, itus, (rejici) jadranka, jalzici, jugoslavicus, lattingerae, (steueri) liburnicus, longiflagellum, lunaris, messanoi (19), parapupetta, pectencoronatus (19), pescei, poianoi, pseudocaspicus, renei, (spoeckeri) sibilliani, (galvagni) similis (19), (pasquini) socialis, spinulifemur, tamaninii, timavi, vjeternicensis.

PARAPSEUDONIPHARGUS baetis

Pseudoniphargus affinis, associatus (19), branchiatus, brevipedunculatus, burgensis, callaicus, candelariae (19), cazorlae, cupicola, eborarius, elongatus, fontinalis, fragilis, gibraltarius, gomerae, gorbeanus, gracilis, granadensis, grandis, guernicae, illustris, incantatus, inconditus (19), (africanus) italicus, jereanus, latipes, longicarpus, longicauda, longispinum, macrotelsonis, margalefi, maroccanus, mateusarum, mercadoli, montanus, multidentis, nevadensis, porticola, salinus, semielongatus, sodalis (19), sorbasiensis, spiniferus, stocki, unisexualis, unispinosus, vasconiensis, vomeratus

Oedicerotidae

ABOROLOBATEA paracheliformis

Aceroides goesi

Arrhis ? mediterranea

CHITONOMANDIBULUM emargicoxae

CORNUDILLA (19)

DOOWIA cooma, dexterae

MACHAIRONYX muelleri

Monoculodes acutipes, dentimanus, koreanus, muwoni

Oedicerina ? megalopoda

Oediceroides pilosus

Periculodes brevicarpus, cerasinus, longirostratus, (aequimanus) mozambicus, pinguis, seohae

Synchelidium carinorostrum, (americanum) latipalpus, lenorostratum, micropleon, rostriopiculum, trioostegitum

Pagetinidae

Pagetina reducta

Paracalliopiidae

INDOCALLIOPE

KATOCALLIOPE kutyeri

Paracalliope mapela

Pardaliscidae

ANTRONICIPPE serrata
Arculfia (trago) mediterranea
Halice sublittoralis
Pardalisca brachydactyla, mediterranea
Pardaliscella inermis
SPELAEONICIPPE provo

Phliantidae

Heterophlias galapagoanus, seticoxa
Palinnotus (thompsoni) japonicus, lepas

Phoxocephalidae**BASUTO**

Birubius apari, babaneekus, booleus, cartoo, chintoo, eake, eleebanus, gallangus, gambodeni, gelarus, jirrandus, kabbulinus, karobrani, kinkus, kokorus, kyeemus, lorus, lowannus, maamus, maldus, mayamayi, millinus, muldarpus, munggai, nammulduus, narus, quearus, taldeus, thalmus, ularitus, wirakus, wulgaru, yandus, yorlunus.

BOORANUS tikeri, wangoorus, weemus

BROLGUS koongarrus, mahmak, tavelus

CEPHALOPHOXOIDES**CEPHALOPHOXUS**

COCOHARPINIA iliffei

CUNMURRA itickerus

DIOGODIAS

ELPEDDO kaikai

EOBROLGUS chumashi

EUSYROPHOXUS**EYAKIA****FERIHARPINIA**

FOXIPHALUS apache, golfensis, secasius, xiximeus

FUEGIPHOXUS abjectus

GANBA pellati

GRANDIFOXUS acanthinus, aciculata, bangpoensis, cuspis, malipoensis, vulpinus

Harpinia agna, ala, clivicola, ferentaria, panini (19), zavodniki

Harpiniopsis bandelei, capensis, pseudonadania

HOPIPHOXUS

JAPARA papporus

JERILDARIA joubiphoxus

Joubinella indentata

KONDOLEUS tekini

KOTLA batturi

KULGAPHOXUS borralus, cadgeeus

KURITUS nacoonus

LEONGATHUS nootoo

Limnophoreia kalduke, maranowe, ungamale, wakkine, woorake, yarrague

Mandibulophoxus hongae, mai

MATONG matong

MESOPHOXUS laperusi

Metaphoxoides angustimanus, zavorus

Metaphoxus gruneri, mintus, tuckatuck, tulearensis, yaranellus

Metharpinia coronadoi, oripacifica

PALABRIAPHOXUS**PARAJOUBINELLA**

PARAMESOPHOXUS rakunae

PARAMETAPHOXUS

Paraphoxus lincolni, tomiokaensis

Parharpinia warte

Phoxocephalus aquosus, burleus, keppeli, kukathus, prolixus, rupullus

PHOXORGIA

Proharpinia setifera

Pseudharpinia calcariaria

RHEPOXYNIUS homocuspидatus, hudsoni, menziesi

RIKKARUS lea
 RINGARINGA (19)
 SYNPHOXUS novaezealandicus
 TICKALERUS birubi
 TIPIMEGUS dinjerrus, kalkro, kangulun
 TORRIDOHARPINIA
 ULDANAMIA pillare
 VASCO
 WAIPIROPHOXUS
 WILDUS mullokus, parathambaroo, thambaroo
 YAMMACOONA kunarella
 YAN errichus, tiendi

Phoxocephalopsidae

EOPHOXOCEPHALOPSIS rhachianensis
 Phoxocephalopsis gallardoi, mehuinensis
 PUELCHE orenzani

Platyischnopidae

EUDEVENOPUS honduranus
 Platyischnopus mam
 SKAPTOPUS brychius
 TIBURONELLA
 TITAKUNARA katoa
 TOMITUKA doowi
 YURROKUS cooroo

Pleustidae

DACTYLOPLEUSTES obsolescens
 Parapleustes dilatatus, filialis, longimanus, tricuspis
 Pleustoides mediterraneus
 Pleusymtes brachypalma, (quadrangularis) brevis, kamui, margulise (19), mucidus
 TEPIDOPLEUSTES

Plioplateiidae

Plioplateia nodiformis

Podoceridae

Dulichia antarctica
 Dulichiopsis brevidactylus
 Laetmatophilus dabberi
 PARADYOPEDOS (19) antarcticus (19)
 PODOBOTHURUS bermudensis
 Podocerus (danae) armatus, crenulatus, gloriosae, hoonsooi (19), (talegus) levuensis, madagascarensis,
 palinuroides, (walkeri) pedonculatus, tulearensis, ulreungensis (19)
 PSEUDODULICHIA (19)
 STYLOXENODICE

Pontoporeiidae

Bathyporeia pseudopelagica, sardoa, sophiae, sunnivae
 DIPOREIA
 MONOPOREIA

Priscomilitaridae

PRISCOMILITARIS tenuis

Salentinellidae

Salentinella carracensis, cazemierae, formenterae, longicaudata, (angelieri) var. longispina, meijersae,
 seviliensis

Sebidae

RELICTOSEBORGIA relicta
Seba chiltoni, gloriosae, tropica
Seborgia schieckei

Stegocephalidae

Andaniella integripes
Andaniexis tridentata
Euandania nonhiata
GLORANDANIOTIS fissicaudata
Parandaniexis dewitti, inermis
Phippsiella pseudophippsia
STEGOSOLADIUS

Stenothoidae

Antatelson tuberculatum
AUROMETOPA
HARDAMETOPA (19)
KNYSMETOPA
Mesoproboloides cruxlorraina
Metopa gurjanovae (19), shoemakeri (19)
Metopella bousfieldi (19)
Metopelloides erythrophthalmus
Metopoides andresi, angustus, antarcticus, foliodactylus, lanceolatus, latus, leptomanus, macromanus, serratus
Parametopa crassicornis, edentata
Parametopella texensis
Proboloides anophthalma, armatus, bellansantiniiae
Prometopa dorsoundata
Raumahara judithae
Stenothoe elachistoides, inermis, irakiensis, kaia
Stenula alexanderi (19)
THAUMATELSONELLA (19) kingelepha (19)
TOROMETOPA
VONIMETOPA
ZAIKOMETOPA

Stilipedidae

Alexandrella inermis, subchelata
ASTYROIDES
Bathypanoploea schellenbergi

Synopiidae

Garosyrrhoë luquei
Metatiron caecus
Synopia rotunda, triangula
Syrrhoites barnardi, capricornia, cornuta
TELSOSYNOPIA
Tiron bellairsi, galeatus, ovatibasis, triocellatus

Talitridae

AGILESTIA hylaea
AMERICORCHESTIA (19) barbarae (19), heardi (19), salomani (19)
Austrotroides crenatus, occidentalis, pectinalis
CARIBOTROIDES chiapensis (19), jamaicensis, newtoni (19), pecki (19), tuxtlenensis (19)
CERRORCHESTIA (19) \hyloraina (19)
CHELORCHESTIA
CHILTONORCHESTIA
CHROESTIA lota
EORCHESTIA
FLORESORCHESTIA guadalupensis (19)
HAWAIORCHESTIA
MACARORCHESTIA martini

MEGALORCHESTIA dexterae
MICRORCHESTIA
Orchestia gomeri (19), *guancha*, *stocki* (19)
PACIFORCHESTIA
PALMORCHESTIA epigaea (19), hypogaea
PLATORCHESTIA chathamensis, munmui
PROTAUSTROTROIDES victoriae
PROTORCHESTIA
PSEUDORCHESTIA mexicana
Talitrus angulosus, *vulgaris*
Talorchestia palawanensis, *pelecaniformis*
TETHORCHESTIA antillensis, *karukarae* (19)
TRANSORCHESTIA
TRASKORCHESTIA
Trinorchestia longiramus
UHLORCHESTIA spartinophila

Temnophliantidae

HYSTRIPHLIAS

Tulearidae

TULEARUS thomassini

Urohaustoriidae

DIRIMUS tarlitus
GHEEGERUS garbais
HUARPE escofeti
NARUNIUS tallerkus
TOTTUNGUS tungus
TULDARUS barinius, cangellus
Urohaustorius gunni, *merkanus*, *parnggius*, *pentinus*, *perkeus*, *pulcus*, *urungari*, *wingaro*, *yurru*
WARRAGAIA rintouli

Urothoidae

Carangolia cornuta
PSEUDUROTHOE benthedii
Urothoe (gelasina) ambigua, *intermedia*, (*grimaldii*) *japonica*, *marionis*
Urothoides kurrawa, *mabing*, *makoo*, *mammarta*, *odernae*, *tondea*, *waminoa*

Vicmusiidae

VICMUSIA duplocoxa

Vitjazianidae

Vemana geysere

Zobrachoidae

BUMERALIUS bucholicus
CHONO angustiarum
PRANTINUS talanggi
TONOCOTE introflexidus, magellani

Ingolfiellidea

HANSENLIELLA
Ingolfiella australiana, *bassiana*, *canariensis* (19), *cottarellii*, *dracospiritis* (19), *gobabis* (19),
grandispina, *margaritae*, *quadridentata*
STYGOBARNARDIA caprellinoides

Caprellidea

Aciconula acanthosoma
Caprella (acutifrons) annobonensis, brachiata, branchella, concinna (19), dissona, equina, generosa, glabra (19), iniqua, kominatoensis (19), liliata, manningi, minima, minuscula, scitula, temperativa
Caprellina bispinosa (19)
Caprogammarus micropleopodus
Cercops minutus
Deutella schieckei
Fallotritella polynesica (19)
Heterocaprella krishnaensis
LIRIOPES lunaticus
Mayerella acanthopoda
Paracaprella insolita
PARADICAPRELLA (19) brucei
PEDUNCULOCAPRELLA antennata
Postocaprella marcida
PREMOHEMIAEGINA sola
PRETRITELLA divina
PROTOTRITELLA ishigakensis
Pseudocercops pubescens
QUADRISEGMENTUM

Cyamidae

Cyamus antarcticensis, orubraedon (19)
Platycyamus flaviscutatus (19)
Scutocyamus antipodensis
Syncyamus aequus

Hyperiiidea

Amphithyrus muratus
Hyperia curticephala
LAXOHYPERIA vespuliformis
Lycaea lilia
Parapronoe elongata
Phronima bowmani (19), dunbari (19)
Primno abyssalis, evansi
Scina curvidactyla (19), exospina (19), hawaiiensis, hurleyi (19), parasetigera (19).

LIST OF SUBSCRIBERS

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DAVID J. AGNEW
DEPT. OF ZOOLOGY
THE UNIVERSITY
GLASGOW G12 8QQ
SCOTLAND UK

DR. R.P. ALEXEEV
INST. OF BIOLOGY OF SOUTH SEAS
ODESSA BRANCH
ACADEMY OF SCIENCES OF USSR
37 PUSHKINKAJA STREET
ODESSA 270011
UKRAINIA

DR. GLORIA M. ALONSO
MUSEO ARGENTINO DE CIENCIAS NATURALES
'BERNARDINO RIVADAVIA'
DIV. INVERTEBRADOS
AV. ANGEL GALLARDO 470
1405 BUENOS AIRES
ARGENTINA

DR. N.J. ALOUF
FACULTE DES SCIENCES
UNIVERSITE LIBANAISE
HADATH
BEYROUTH 6160
LEBANON

DR. H.-G. ANDRES
ZOOLOGISCHES INSTITUT UND ZOOLOGISCHES
MUSEUM
UNIVERSITÄT HAMBURG
VON-MELLE-PARK 10
2000 HAMBURG 13
GERMANY

MASAKAZU AOKI
AMAKUSA MARINE BIOLOGICAL LABORATORY
KYUSHU UNIV.
2231 TOMIOKA, AMAKUSA
KUMAMOTO PREFECTURE 863-25
JAPAN

HIROYUKI ARIYAMA
OSAKA PREFECTURAL FISHERIES
EXPERIMENTAL STATION
2926-1 TANAGAWA-TANIGAWA
MISAKI OSAKA PREF. 599-03
JAPAN

DR. TOM ARSUFFI
AQUATIC SECTION
SOUTHWEST TEXAS STATE UNIVERSITY
SAN MARCOS TX 78666
USA

DR. K. PEETHAMBARAN ASARI
TEACHER FELLOW
CAS IN MARINE BIOLOGY
PORTONOVO
TAMIL NADU 608502
INDIA

DR M. ATTA
OCEANOGRAPHY DEPARTMENT
FACULTY OF SCIENCE
ALEXANDRIA UNIVERSITY
MOHARREM BAY
ALEXANDRIA
EGYPT

LIBRARY
AUSTRALIAN MUSEUM
PO BOX A285
SYDNEY SOUTH NSW 2000
AUSTRALIA

DR. MIKIO AZUMA
BIOLOGICAL LABORATORY
FACULTY OF EDUCATION
NAGASAKI UNIVERSITY
1-14 BUNKYO
NAGASAKI 852
JAPAN

ADAM BALDINGER
CALIFORNIA ACADEMY OF SCIENCES
DEPT OF INVERTEBRATE ZOOLOGY AND
GEOLOGY
GOLDEN GATE PARK
SAN FRANCISCO CA 94118
USA

DR. MANAF BEHBEHANI
DEPT. OF ZOOLOGY
UNIVERSITY OF KUWAIT
KUWAIT
KUWAIT

DR. D. BELLAN-SANTINI
CENTRE D'OCÉANOLOGIE DE MARSEILLE
STATION MARINE D'ENDOUME
RUE BATTERIE DES LIONS
13000 MARSEILLE
FRANCE

DR. BRUCE BENEDICT
MARINE BIOLOGICAL CONSULTANTS
947 NEWHALL STREET
COSTA MESA CA 92627
USA

MARIA TERESA V. BERARDO
 INSTITUTO OCEANOGRAFICO DA U.S.P.
 PRACA DO OCEANOGRAFICO, 191
 BUTANTA 05508 SAO PAULO
 BRAZIL

MS. PENNY B. BERENTS
 DIVISION OF INVERTEBRATE ZOOLOGY
 THE AUSTRALIAN MUSEUM
 P.O. BOX A285
 SYDNEY SOUTH NSW 2000
 AUSTRALIA

DR. J. BERREUR-BONNENFANT
 LABORATOIRE DE GENETIQUE EVOLUTIVE
 CNRS
 91190 GIF-SUR-YVETTE
 FRANCE

WALTER J. BERRY
 SCIENCE APPLICATIONS INTERNATIONAL
 CORPORATION, MARINE SERVICES
 BRANCH C/O EPA
 27 TARZELL DRIVE
 NARRAGANSETT RI 02882
 USA

ZOOLOGISK MUSEUM BIBLIOTEKET
 UNIVERSITETET I OSLO
 SARSGT. 1
 0562 OSLO 5
 NORWAY

BIBLIOTECA INSTITUTO DI ZOOLOGIA
 DELL'UNIVERSITA
 VIA ROMANA 17
 I 50125 FIRENZE
 ITALY

CHARLES K. BIERNBAUM
 GRICE MARINE BIOLOGICAL LAB.
 205 FT. JOHNSON
 CHARLESTON SC 29412
 USA

DR. M. F. BLANCHET
 LABORATOIRE DE SEXUALITE
 DES INVERTEBRES
 BATIMENT C
 UNIVERSITE DE PARIS VI
 75230 PARIS CEDEX 05
 FRANCE

SHERMAN BOATES
 DEPT OF BIOLOGY
 ACADIA UNIVERSITY
 WOLFVILLE N.S.C. B0P QX0
 CANADA

DR. D.G. BONE
 BRITISH ANTARCTIC SURVEY
 MONKS WOOD EXPERIMENTAL STATION
 ABBOTS RIPTON
 HUNTINGDON
 ENGLAND

BILLY B. BOOTHE
 MOTE MARINE LABORATORY
 1600 CITY ISLAND PARK
 SARASOTA FL 33577
 USA

DR. BETTY BOROWSKY
 DEPT. BIOLOGY
 CITY COLLEGE
 CITY UNIVERSITY OF NEW YORK
 NEW YORK NY 10031
 USA

LUC BOSSÉ
 INST. MAURICE-LAMONTAGNE
 850, ROUTE DE LA MER
 C.P. 1000
 MONT JOLI QUEBEC G5H 3Z4
 CANADA

DR. S. WELDON BOSWORTH
 NORMANDEAU ASSOCIATES
 686 MAST ROAD
 MANCHESTER NH 93102
 USA

DR. B. BOU
 LA FORESTOLE 1
 CAMBON
 81000 ALBI
 FRANCE

MR. MICHEL A. BOUDRIAS
 SCRIPPS INSTITUTION OF OCEANOGRAPHY
 UNIVERSITY OF CALIFORNIA AT SAN DIEGO
 9500 GILMAN DRIVE
 LA JOLLA CA 92093
 USA

DR. E. L. BOUSFIELD
 ROYAL BRITISH COLUMBIA MUSEUM
 VICTORIA BC V8V 1X4
 CANADA

CLAUDE BOUTIN
 UNIV. PAUL SABATIER
 LABORATOIRE DE ZOOLOGIE
 118 ROUTE DE NARBONNE
 31062 TOULOUSE CEDEX
 FRANCE

MARCIA BOWEN
 NORMANDEAU ASSOCIATES
 25 NASHUA RD
 BEDFORD NH 03102
 USA

DR. T.E. BOWMAN
DIVISION OF CRUSTACEA
NATIONAL MUSEUM OF NATURAL HISTORY
SMITHSONIAN INSTITUTION
WASHINGTON DC 20560
USA

DR. GERD BRACHT
UNIVERSITÄTSBIBLIOTHEK DUESSELDORF
UNIVERSITÄTSSTR. 1
D 4000 DÜSSELDORF 1
GERMANY

ALEJANDRO BRAVO
INSTITUTO DE ZOOLOGIA
UNIV. AUSTRAL DE CHILE
CASILLA 567
VALDIVIA
CHILE

DR. B. BRUN
LABORATOIRE DE BIOLOGIE ANIMALE
UNIVERSITE DE PROVENCE
CENTRE DE SAINT-JEROME
13013 MARSEILLE
FRANCE

DR. G. BRUN
LABORATOIRE DE BIOLOGIE ANIMALE
UNIVERSITE DE PROVENCE
CENTRE DE SAINT-CHARLES
13003 MARSEILLE
FRANCE

DR. P. BRUNEL
DEPARTMENT DES SCIENCES BIOLOGIQUES
UNIVERSITÉ DE MONTRÉAL
C.P. 6128
MONTRÉAL, QUÉBEC H3C 3J7
CANADA

DR. G. J. BRUSCA
DEPT. OF BIOLOGY
HUMBOLDT STATE UNIVERSITY
ARCATA CA 95521
USA

DR. R. C. BRUSCA
SAN DIEGO NATURAL HISTORY MUSEUM
PO BOX 1390
SAN DIEGO CA 92112
USA

DR. V. BRYAZGIN
LAB. OF MARINE HYDROBIOLOGY
KNIPOVICH POLAR INST. OF MARINE FISH.
AND OCEANOGRAPHY
6 KNIPOVICH ST.
MURMANSK 183063
RUSSIA

LUDMILA L. BUDNIKOVA
LABORATORY OF SHELF COMMUNITIES
INSTITUTE OF MARINE BIOLOGY
FAR EAST BRANCH ACAD. SCI. RUSSIA
VLADIVOSTOK 690 032
RUSSIA

LENE BUHL-MORTENSEN
INST. FOR FISKERI- OG MARINBIOLOGI
UNIV. I BERGEN
HØGTEKNOLOGISENTERET
N-5020 BERGEN
NORWAY

DR. ARTHUR L. BUIKEMA
DEPT. OF BIOLOGY
VIRGINIA POLYTECHNIC INSTITUTE AND
STATE UNIVERSITY
BLACKSBURG VA 24061
USA

DR. H. P. BULNHEIM
BIOLOGISCHE ANSTALT HELGOLAND
NOTKESTR. 31
2000 HAMBURG 52
GERMANY

DR. K. H. BYNUM
DEPT. OF ZOOLOGY
WILSON HALL 046-A
UNIVERSITY OF NORTH CAROLINA
CHAPEL HILL NC 27514
USA

DR. DON CADIEN
MARINE BIOLOGY LAB-JWCP
24501 FIGUEROA STREET
CARSON CA 90754
USA

KALANI D. CAIRNS
HARBOR BRANCH FOUNDATION INC.
RR 1 BOX 196-A
FT. PIERCE FL 33450
USA

DR. DAVID K. CAMP
FLORIDA DEPT. MARINE RESOURCES
MARINE RESEARCH LAB.
100 EIGHT AVENUE S.E.
ST. PETERSBURG FL 33701
USA

DR. SERGEI CARAUSU
FACULTATEA BIOLOGIE-GEOGRAFIE
LABORATOR DE HIDROBIOLOGIE
UNIVERSITATEA IA I
IA I
ROMANIA

ANDREW CAREY
DEPARTMENT OF OCEANOGRAPHY
UNIVERSITY OF OREGON
CORVALLIS OR 97331
USA

DIANE CARNEY
BENTHIC LAB
MOSS LANDING MARINE LABS
PO BOX 450
MOSS LANDING CA 95039
USA

DR. JAMES T. CARLTON
WILLIAMS COLLEGE-MYSTIC SEAPORT
MYSTIC SEAPORT MUSEUM
MYSTIC CT 06355
USA

DR. M. C. CARRÉ-LECUYER
LABORATOIRE DE GENETIQUE EVOLUTIVE
CNRS
91 GIF-SUR-YVETTE
FRANCE

JUANA ROSA CEJAS PULID
DEPARTMENT DE CIENCIAS MARINAS
FACULTAD DE BIOLOGIA
UNIVERSIDAD DE LA LAGUNA
LA LAGUNA TENERIFE
SPAIN

DR. A. CHAMPEAU
LABORATOIRE DE BIOLOGIE ANIMALE
UNIVERSITE DE PROVENCE
CENTRE DE SAINT-CHARLES
13003 MARSEILLE
FRANCE

DR. K. K. CHANDRASEKHARAN NAIR
INDIAN OCEAN BIOLOGICAL CENTER
P.B. NO. 13
PULLEPADY CROSS ROAD
ERNAKULAM
COCHIN-16
INDIA

DR. JOHN CHAPMAN
ENVIRONMENTAL PROTECTION AGENCY
MARINE SCIENCE CENTER
NEWPORT OR 97365
USA

DR LORENZO CHELAZZI
CENTRO SFET CNR
VIA ROMANA 17
50125 FIRENZE
ITALY

DR. JAMES R. CHESSE
SOUTHWEST FISHERIES CENTER
TIBURON LABORATORY
NATIONAL MARINE FISHERIES CENTER
TIBURON CA 94920
USA

CARLOS CHRISTOPHERSEN
KONGENSGT. 14
N-4610 KRISTIANSAND S
NORWAY

G. CIAVATTI
CENTRE UNIVERSITAIRE ANTILLES-GUYANE
LAB. BIOLOGIE & PHYSIOLOGIE ANIMALES
F-97167 POINTE A PITRE CEDEX
GUADELOUPE
FRENCH WEST INDIES

DR. WENDY L. COFFIN
PISCATAQUA MARINE LAB.
NORMANDEAU ASSOCIATES
15 PICKERING AVENUE
PORTSMOUTH NH 03801
USA

DR. N. COINEAU
UNIV. DE PARIS
BIOL. MARIN LABORATOIRE ARAGO
66650 BANYULS-SUR-MER
FRANCE

FAITH A. COLE
U-S, EPA
HATFIELD MARINE SCIENCE CENTER
NEWPORT OR 97365
USA

DR. G. A. COLE
DEPT. OF BIOLOGY
ARIZONA STATE UNIVERSITY
TEMPE AR 85281
USA

OLIVER COLEMAN
UNIVERSITÄT BIELEFELD
FAKULTÄT FÜR BIOLOGIE
UNIVERSITÄTSSTRASSE
MORGENBREEDE 45
W-4800 BIELEFELD
GERMANY

DR. KATHLEEN E. CONLAN
ZOOLOGY DIVISION
CANADIAN MUSEUM OF NATURE
PO BOX 3443, STATION "D"
OTTAWA, ONTARIO K1P 6P4
CANADA

MERCEDES CONRADI
UNIVERSITY DE CADIZ
FACULTAD DE CIENCIAS DEL MAR, BIOLOGIA
APTO NR. 40
11510 PUERTO REAL, CADIZ
SPAIN

DR. WILLIAM J. COOKE
MARINE ENVIRONMENTAL RESEARCH
522 WANACO RD
KAILUA HI 96734
USA

DR. B. COOPER
 MINISTRY OF AGRICULTURE & FISHERY
 P. O. BOX 2298
 WELLINGTON
 NEW ZEALAND

MARK J. COSTELLO
 ENVIRONMENTAL SCIENCES UNIT
 TRINITY COLLEGE
 DUBLIN 2
 IRELAND

DR. KEN COYLE
 INSTITUTE OF MARINE SCIENCE
 UNIVERSITY OF ALASKA
 FAIRBANKS AK 99775-1080
 USA

DR. PETER CRAIG
 53 HOWARD AVENUE
 NANAIMO B.C.
 CANADA

DR. G.I. CRAWFORD
 HALL CLOSE COTTAGE
 81 MAIN ROAD
 GRENDON NORTHAMPTON NN7 1JW
 UK

DR. D. C. CULVER
 DEPT. OF BIOLOGICAL SCIENCES
 NORTHWESTERN UNIVERSITY
 EVANSTON IL 60201
 USA

DR. M.J. DADSWELL
 DEPARTMENT OF BIOLOGY
 ACADIA UNIVERSITY
 WOLFVILLE, NOVA SCOTIA B0P 1X0
 CANADA

DR. E. DAHL
 ZOOLOGISKA INSTITUTIONEN
 LUND
 S 22362
 SWEDEN

DR. AI-YUN DAI
 INST. OF ZOOLOGY
 ACADEMICA SINICA
 BEIJING 100080
 CHINA

DR. NANI GOPAL DAS
 INST. OF MARINE SCIENCES
 UNIV. OF CHITTAGONG
 CHITTAGONG
 BANGLADESH

DAVID J. DAVIS
 RT. 5, BOX 297-E
 CHAPEL HILL NC 27514
 USA

JEAN-CLAUDE DAUVIN
 MUSEUM NATIONAL D'HISTOIRE NATURELLE
 DE PARIS
 LABORATOIRE DE BIOLOGIE DES
 INVERTEBRÉS MARINS
 57 RUE CUVIER
 75231 PARIS CEDEX 01
 FRANCE

E.M. DEBLOIS
 DEPT OF BIOLOGY
 MCGILL UNIVERSITY
 1205 DOCTEUR PENFIELD AVE.
 MONTRÉAL, QUÉBEC H3A 1B1
 CANADA

DR. C. DE BROYER
 INSTITUT ROYAL DES SCIENCES NATURELLES
 RUE VAUTIER 31
 BRUXELLES
 BELGIUM

TED DEWITT
 EPA LABORATORY
 HATFIELD MARINE SCIENCE CENTER
 NEWPORT OR 97365
 USA

DR. D. DENAY
 LABORATOIRE DE SEXUALITE DES
 INVERTEBRES
 BATIMENT C
 UNIVERSITE DE PARIS VI
 75230 PARIS CEDEX 05
 FRANCE

DEPARTMENT OF ZOOLOGY
 UNIVERSITY COLLEGE
 GALWAY
 IRELAND

DR. JOHN DICKINSON
 NATIONAL MUSEUM OF NATURAL SCIENCES
 NATIONAL MUSEUM OF CANADA
 OTTAWA K1A 0M8
 CANADA

PAT DINNEEN
 AQUA-FACT INTERNATIONAL SERVICES LTD
 7 INNOVATION CENTRE
 NEWCASTLE GALWAY
 IRELAND

DR B. DITTRICH
 COLUMBUSSTRASSE
 W- 2850 BREMERHAVEN
 GERMANY

DR. GIOVANNI DIVIACCO
 ISTITUTO CENTRALE RICERCA APPLICATA
 ALLA PESCA MARITIMA
 VIA RESPIGHI 5
 00197 ROMA
 ITALY

IAIN M.T. DIXON
UNIVERSITY MARINE BIOLOGICAL STATION
MILLPORT
ISLE OF CUMBRAE KA 28 OEG
SCOTLAND
UK

DR. M.J. DOLE-OLIVIER
UNIVERSITÉ DE LYON
HYDROBIOLOGIE ET ECOLOGIE SOUTERRAINES
43, BD DU 11 NOV. 1918
F-69622 VILLEURBANNE CEDEX
FRANCE

DR. TED E. DONN
DEPT OF OCEANOGRAPHY AND OCEAN
ENGINEERING
FLORIDA INST. OF TECHNOLOGY
MELBOURNE FL 32901
USA

DR. J. DORGELO
LABORATORY OF ANIMAL PHYSIOLOGY
UNIVERSITY OF AMSTERDAM
KRUISLAAN 320
AMSTERDAM
HOLLAND

M.M. DRUMMOND
DEPT. OF CRUSTACEA
NATIONAL MUSEUM OF VICTORIA
71 VICTORIA CRESCENT
ABBOTSFORD VIC 3067
AUSTRALIA

J. EMMETT DUFFY
MARINE SCIENCES PROGRAM
UNIV. OF NORTH CAROLINA
CB 3300, 12-5 VENABLE HILL
CHAPEL HILL NC 27599-3300
USA

PATRICIA J. DUGAN
DEPT. ENVIRONMENTAL REGULATION
TWIN TOWERS OFFICE BLDG.
2600 BLAIR STONE ROAD
TALLAHASSEE FL 32301
USA

DR. K.W. DUNCAN
DEPT. OF ZOOLOGY
UNIVERSITY OF CANTERBURY
CHRISTCHURCH
NEW ZEALAND

MS. BONNIE DUNN
EPA INFORMATION ASSISTANT
ENVIRONMENTAL PROTECTION AGENCY
MARINE SCIENCE CENTER
NEWPORT OR 97365
USA

DR. A. ELEFThERIOU
INST. OF MARINE BIOLOGY OF CRETE
PO BOX 2214
HERAKLION 71003, CRETE
GREECE

RAGNAR ELMGREN
DEPT OF SYSTEMS ECOLOGY
STOCKHOLM UNIVERSITY
S-106 91 STOCKHOLM
SWEDEN

DR. R. ELOFSSON
ZOOLOGISKA INSTITUTIONEN
UNIVERSITY OF LUND
LUND S 22362
SWEDEN

DR. A.-M. ESCOFET
P.O. BOX 4844
SAN YSIDRO
CA 92073
USA

DR. A.-M ESCOFET
INSTITUTO DE BIOLOGIA MARINA
CASILLA DE CORREO 175
PLAYA GRANDE
MAR DEL PLATA
ARGENTINA

PAVEL FEDOTOV
BENTHIC LABORATORY
KAMCHATKA DEPARTMENT OF
PACIFIC INSTITUTE OF FISHERIES AND
OCEANOGRAPHY
PETROPAVLOVSK - KAMCHATSKY 690 000
RUSSIA

DR. GRAHAM FENWICK
DEPT. OF ZOOLOGY
UNIVERSITY OF CANTERBURY
CHRISTCHURCH
NEW ZEALAND

DR. J. D. FISH
DEPT. OF ZOOLOGY
UNIVERSITY COLLEGE OF WALES
PENGLAIS
ABERYSTWYTH
WALES, UK

DR. BROR FORSMAN
STYRMANSGATA 4
S 38100 KALMAR
SWEDEN

JOHN M. FOSTER
504 EAST PINE FOREST DRIVE
LYNN HAVEN FL 32444
USA

NORA R. FOSTER
AQUATIC COLLECTION
UNIV. OF ALASKA MUSEUM
907 YUKON DRIVE
FAIRBANKS AK 99775-1200
USA

DR. RICHARD S. FOX
DEPT. OF BIOLOGY
LANDER COLLEGE
GREENWOOD SC 29646
USA

DR. ULRICH FRANKE
TEGGINGERSTR. 1
D-7760 RADOLFZELL
GERMANY

DR. J.A. FRIEND
WESTERN AUSTRALIA WILDLIFE RESEARCH
CENTRE
P.O. BOX 51
WANNEROO WA 6065
AUSTRALIA

DR. MITSUO FUKUCHI
NATIONAL INSTITUTE OF POLAR RESEARCH
KAGA 1-9-10, ITABASHI
TOKYO 173
JAPAN

TAKUYA FUJIMURA
RESEARCH OFFICE OF AQUACULTURE
YAMAKATSU PEARL CO. LTD
KASHIKOJIMA, SHIMA
MIE PREF. 517-05
JAPAN

PROF. DR. VICTOR A. GALLARDO
CENTRO EULA-CHILE, UNIV. DE CONCEPCION
INVESTIGACION Y FORMACION EN CIENCIAS
AMBIENTALES
CASILLA 156-C
CONCEPCION
CHILE

DR. SHIGEO GAMO
FACULTY OF EDUCATION
YOKOHAMA NATIONAL UNIVERSITY
HODOGAYA
YOKOHAMA 222
JAPAN

DR. J. GIBERT
UNIVERSITE CLAUDE BERNARD LYON-I
DEPARTEMENT DE BIOLOGIE ANIMALE
43 BOULEVARD DU 11 NOVEMBER 1918
F-69622 VILLEURBANNE CEDEX
FRANCE

DR. R. GINET
UNIVERSITE CLAUDE BERNARD LYON-I
HYDROBIOLOGIE ET ECOLOGIE SOUTERRAINES
43, BD DU 11 NOVEMBER 1918, BAT. 403
F-69522 VILLEURBANNE CEDEX
FRANCE

DR. THOMAS GINSBURGER-VOGEL
LABORATOIRE DE BIOLOGIE MARINE
FACULTÉ DES SCIENCES
2 RUE DE LA HOUSSINIÈRE
44300 NANTES
FRANCE

DR. T. GLEDHILL
FRESHWATER BIOLOGICAL ASSOCIATION
THE RIVER LABORATORY
EAST STOKE
WAREHAM DORSET
ENGLAND

DR. THOMAS GLENNON
NORMANDEAU ASSOCIATES
15 PICKERING AVENUE
PORTSMOUTH NH 03801
USA

DR. A.A. GOLIKOV
ZOOLOGICAL INSTITUTE
ACADEMY OF SCIENCES
199034 ST PETERSBURG
RUSSIA

VICENTE GOMES
INSTITUTO OCEANOGRAFICO
UNIVERSIDADE DE SAO PAULO
PRACA DE OCEANOGRAFICO, 191
BUTANTA 95508 SAO PAULO
BRAZIL

DR. EXEQUIEL GONZALEZ
P.O. BOX 189
COQUIMBO
CHILE

HAROLD H. GOWEN
107 BUNCH LANE
GREENVILLE NC 27834
USA

DR MICHAEL F. GABLE
DEPT OF BIOLOGY
EASTERN CONNECTICUT STATE UNIV.
53 WINDHAM STR.
WILLIMANTIC CT 06226
USA

DR. F. GRAF
LABORATOIRE DE BIOLOGIE GENERALE
UNIVERSITE DE DIJON
6 BOULEVARD GABRIEL
21-DIJON
FRANCE

DR. C. L. GRIFFITHS
DEPT. OF ZOOLOGY
UNIVERSITY OF CAPE TOWN
RONDEBOSCH 7700
SOUTH AFRICA

DR. H. E. GRUNER
ZOOLOGICAL MUSEUM
INVALIDENSTRASSE 43
E 104 BERLIN
GERMANY

DR. RICHARD HAGER
DIVISION OF NATURAL SCIENCES
STOCKTON STATE COLLEGE
POMONA NJ 08240
USA

DR. L.H.R. HAMBLIN
16 SHAFTESBURY ROAD
ROMFORD, ESSEX RM1 2QH
UK

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LOS ANGELES CA 90089-0371
USA

DR. EIJI HARADA
SETO MARINE BIOLOGICAL LABORATORY
SIRAHAMA
WAKAYAMA PREFECTURE 649-22
JAPAN

DR. RICHARD HARBISON
WOODS HOLE OCEANOGRAPHIC INSTITUTION
WOODS HOLE MA 02543
USA

DR. G.R. HARBISON
AUSTRALIAN INSTITUTE OF MARINE SCI.
TOWNSVILLE QLD 4810
AUSTRALIA

R.R. HARRIS
DEPT OF ZOOLOGY
UNIV. OF LEICESTER
LEICESTER LE 17RH
ENGLAND UK

DR. EDWARD B. HATFIELD
JACKSON ESTUARINE LAB.
UNIVERSITY OF NEW HAMPSHIRE
DURHAM NH 03824
USA

DR. RICHARD W. HEARD
GULF COAST RESEARCH LAB.
P.O. BOX 7000
OCEAN SPRINGS MS 39564-7000
USA

ED HENDRYCKS
CANADIAN MUSEUM OF NATURE
P.O. BOX 3443, STATION "D"
OTTAWA, ONTARIO K1P 6P4
CANADA

DR. K. F. HERHAUS
ZOOLOGISCHES INSTITUT
ABT. PHYSIOLOGIE UND OKOLOGIE
BADENSTR. 9
W-4400 MUNSTER
GERMANY

DR. ROBERT R. HESSLER
SCRIPPS INSTITUTION OF OCEANOGRAPHY
UNIVERSITY OF CALIFORNIA, SAN DIEGO
9500 GILMAN DR.
LA JOLLA CA 92093-0208
USA

DR. G.R.F. HICKS
NATIONAL MUSEUM OF NEW ZEALAND
P.O. BOX 467
WELLINGTON
NEW ZEALAND

RAY HIGHSMITH
INST. OF MARINE SCIENCE
UNIV. OF ALASKA
FAIRBANKS AK 99775-1080
USA

CATHY HILL
DEPT OF ZOOLOGY
STOCKHOLM UNIVERSITY
S-10691 STOCKHOLM
SWEDEN

DR. YOSHIAKO HIRANO
MUKAISHIMA BIOLOGICAL STATION
MUKAISHIMA-CHO
ONOMISHI P.O.
HIROSHIMA-KEN
JAPAN

DR. AKIRA HIRAYAMA
BIOLOGICAL LABORATORY
DEPT OF LIBERAL ARTS
ASIA UNIVERSITY
5-24-10 SAKAI
MUSASHINO TOKYO 180
JAPAN

DR. MASANORI HIROKI
DEPT. SCIENCE EDUCATION
KYOTO UNIVERSITY OF EDUCATION
FUJINOMORI
KYOTO 612
JAPAN

DR. TAKEHIKO HIWATARI
 MIKAGEYAMATE 3-3-2-307, HIGASINADA
 KOBE 657
 JAPAN

MS. HEATHER HOLMAN
 IRA C. DARLING CENTER
 UNIVERSITY OF MAINE
 WALPOLE ME 04573
 USA

J.M.C. HOLMES
 NATIONAL MUSEUM
 KILDARE STREET
 DUBLIN 2
 IRELAND

DR. JOHN R. HOLSINGER
 DEPT. OF BIOLOGICAL SCIENCES
 OLD DOMINION UNIVERSITY
 NORFOLK VA 23529-0266
 USA

DR. L. B. HOLTHUIS
 NATIONAAL NATUURHISTORISCH MUSEUM
 RAAMSTEEG 2
 LEIDEN
 THE NETHERLANDS

DR. YOSHIHARU HONMA
 FACULTY OF SCIENCE
 NIIGATA UNIVERSITY
 NIIGATA
 NIIGATA PREF 950-21
 JAPAN

JEFF HUGHES
 262 GRANITE STREET
 QUINCY MA 02168
 USA

DR. D. HURLEY
 N. Z. OCEANOGRAPHIC INSTITUTE
 P.O. BOX 12-346
 WELLINGTON NORTH
 NEW ZEALAND

DR. S. HUSMANN
 LIMNOLOGISCHE FLUSZSTATION
 W-6407 SCHLITZ
 GERMANY

DR. R. HUSSON
 LABORATOIRE DE BIOLOGIE GENERALE
 UNIVERSITE DE DIJON
 6 BOULEVARD GABRIEL
 21-DIJON
 FRANCE

DR. R. W. INGLE
 BRITISH MUSEUM (NATURAL HISTORY)
 DEPT. OF ZOOLOGY
 CROMWELL ROAD
 LONDON SW7 5BD
 ENGLAND

DR. CAMILLA L. INGRAM
 3227 CARLETON STREET
 SAN DIEGO
 CA 92108
 USA

INIDEP LIBRARY
 CC 17 S PLAYA GRANDE
 7600 MAR DEL PLATA
 ARGENTINA

DR. HISAO INOUE
 HITECHI OAIICHI SENIOR HIGH SCHOOL
 3-15-1 WAKOBE, HITECHI
 IBARAKI PREFECTURE 317
 JAPAN

DR. HARUHIKO IRIE
 MIKAWA 1221-9
 NAGASAKI 852
 JAPAN

INSTITUTE OF BIOLOGY
 MIERA STR. 3
 LV-2169 SALASPILS
 LATVIA

SHIN-ICHI ISHIMARU
 3-19-60 NO-MACHI
 KANAZAWA 921
 JAPAN

MASA-ICHI ITOH
 HAMOCHI SENIOR HIGH SCHOOL
 HAMOCHI, SADO
 NIIGATA PREFECTURE 952-05
 JAPAN

SYOH-ICHI ITOH
 SAWANE 153
 SADO NIIGATA PREF. 952-14
 JAPAN

DR ELENA IVANJUSHINA
 LABORATORY OF BENTHIC COMMUNITIES
 KAMCHATKA INSTITUTE OF ECOLOGY
 FAR EAST BRANCH ACD. SCI. RUSSIA
 PARTIZANSKAYA STR. 6
 PETROPAVLOVSK - KAMCHATSKY 683 000
 RUSSIA

MIYUKI IZUMIDATE
 SANYO TECHNO-MARINE CO LTD
 HORIDOME 1-3-17, NIHONBASHI
 TOKYO 103
 JAPAN

DR. A. V. JANKOWSKI
 ZOOLOGICAL INSTITUTE
 ACADEMY OF SCIENCES USSR
 V-164 ST PETERSBURG
 RUSSIA

DR. K. JAZDZEWSKI
 DEPT OF INVERTEBRATE ZOOLOGY AND
 HYDROBIOLOGY
 UNIVERSITY OF LODZ
 12-16 UL. BANACHA
 90-237 LODZ
 POLAND

K. THOMAS JENSEN
 DEPART. OF ECOLOGY & GENETICS
 INST. OF BIOLOGICAL SCIENCES
 UNIVERSITY OF AARHUS
 BUILDING 540. NY MUNKEGADE
 DK-8000 AARHUS C
 DENMARK

DR ANTONIO JIMENO FERNANDEZ
 FACULTAD DE BIOLOGIA
 UNIVERSIDAD DE BARCELONA
 ZOOLOGIA INVERTEBRATES
 AVD. DIAGONAL 645
 08028 BARCELONA
 SPAIN

DR. W. S. JOHNSON
 MARINE SCIENCE PROGRAM
 GOUCHER COLLEGE
 TOWSON MD 21204
 USA

DR. N. S. JONES
 MARINE BIOLOGICAL STATION
 PORT ERIN
 ISLE OF MAN
 UK

DR. I. JONES
 DEPT. OF BIOLOGY
 CALIFORNIA STATE UNIVERSITY
 LONG BEACH CA 90845
 USA

DR. H. JUNERA
 LABORATOIRE SEXUALITE DES INVERTEBRES
 BATIMENT C
 UNIVERSITE DE PARIS VI
 75230 PARIS CEDEX 05
 FRANCE

DR JEAN JUST
 ABRS
 GPO BOX 1383
 CANBERRA ACT 2601
 AUSTRALIA

DR. R. KAIM-MALKA
 STATION MARINE D'ENDOUME
 RUE DE LA BATTERIE-DES-LIONS
 13 MARSEILLE 7
 FRANCE

RAVIL KAMALTYNOV
 LIMNOLOGICAL INSTITUTE
 ACADEMY OF SCIENCES
 IRKUTSK
 RUSSIA

DR OLGA KAMENSKAYA
 INST. OKEANOLOGYA ' IRSOV'
 KRASIKOVA 23
 MOSKVA 117-218
 RUSSIA

YUKIYOSHI KAMIHIRA
 BIOLOGICAL LABORATORY
 HAKODATE COLLEGE
 TAKAOKA
 HAKODATE 042
 JAPAN

DR. E. KANNEWORF
 MARINBIOLOGISK LABORATORIET
 GRØNNEHAVE
 HELSINGØR
 DANMARK

DR. G. KARAMAN
 BIOLOGICAL INSTITUTE
 P.O. BOX 40
 81001 TITOGRAĐ MONTENEGRO
 YUGOSLAVIA

DR MARIA KARAKIRI
 BIOLOGISCHE ANSTALT HELGOLAND
 NOTKESTR. 31
 W-2000 HAMBURG 52
 GERMANY

DR. TUNCER KATAGAN
 EGE UNIVERSITESI, SCIENCE FACULTY
 DEPT OF BIOLOGY
 SECTION OF HYDROBIOLOGY
 35100 BORNOVA, IZMIR
 TURKEY

STEVE KEABLE
 DIV. OF INVERTEBRATE ZOOLOGY
 AUSTRALIAN MUSEUM
 PO BOX A285
 SYDNEY SOUTH NSW 2000
 AUSTRALIA

DR. DONALD E. KEITH
 DEPT. OF BIOLOGICAL SCIENCES
 TARLETON STATE UNIVERSITY
 STEPHENVILLE TX 76402
 USA

DR. CHANG BAE KIM
DEPARTMENT OF ZOOLOGY
COLLEGE OF NATURAL SCIENCES
SEOUL NATIONAL UNIVERSITY
SEOUL 151-742
SOUTH KOREA

DR. PETER KINNER
NORMANDEAU ASSOCIATES
15 PICKERING AVENUE
PORTSMOUTH NH 03801
USA

MICHAEL KLAGES
ALFRED-WEGENER-INSTITUTT FÜR POLAR-
UND MEERESFORSCHUNG
POSTFACH 120161
W-2850 BREMERHAVEN
GERMANY

DR. RICHARD KLINK
DEPT. OF BIOLOGY
UNIV. OF SOUTHERN CALIFORNIA
LOS ANGELES CA 90007
USA

DR. BRENTON KNOTT
DEPT. OF ZOOLOGY
UNIVERSITY OF WESTERN AUSTRALIA
NEDLANDS WA 6009
AUSTRALIA

DAVID M. KNOTT
SOUTH CAROLINA WILDLIFE AND MARINE
RESOURCES DEPT.
P.O. BOX 12559
CHARLESTON SC 29412
USA

DR. AHMET KOCATAS
EGE UNIVERSITESI, SCIENCE FACULTY
DEPT OF BIOLOGY
SECTION OF HYDROBIOLOGY
35100 BORNOVA, IZMIR
TURKEY

HAL KOCH
IRA C. DARLING CENTER
UNIVERSITY OF MAINE
WALPOLE ME 04573
USA

DR. K.D. KOCH
IM LANGEN FELD
W D-6407 SCHLITZ
GERMANY

JÖRG KÖHN
A. SCHWEITZER-STR. 34
E-2540 ROSTOCK
GERMANY

DR. A. KOUKOURAS
DEPT OF ZOOLOGY
UNIV. OF THESSALONIKI
PO BOX 134
THESSALONIKI
GREECE

DR. KOWALEVSKY
INSTITUTE OF BIOLOGY OF THE SOUTH SEAS
ACADEMY OF SCIENCES
2 NAHIMOV STR.
SEVASTOPOL
UKRAINA

DR. G. KRAPP-SCHICKEL
PF. HOFFMANNSTR. 7 A
W-53343 WACHTBERG-ADENDORF
GERMANY

HANS G. KUCK
CRUSTACEA
NATURAL HISTORY MUSEUM OF LOS
ANGELES COUNTY
900 EXPOSITION BLVD
LOS ANGELES CA 90007
USA

DR. V. A. KUDRJASHOV
FAR EAST UNIVERSITY
BIOLOGICAL FACULTY
DEPT. OF HYDROBIOLOGY AND ICHTHYOLOGY
VLADIVOSTOK 690 000
RUSSIA

KEIKO KURIBAYASHI
GRADUATE SCHOOL OF ENVIRONMENTAL
SCIENCE
HOKKAIDO UNIV.
KITA 10, NISHI 8
SAPPORO 060
JAPAN

DR. ARMAND KURIS
DEPT. OF BIOLOGICAL SCIENCES
UNIVERSITY OF CALIFORNIA
SANTA BARBARA CA 93106
USA

HARUMI KUSANO
DEPT OF BIOLOGY
KEIO UNIVERSITY
HIYOSHI 4-1-1 MINETO-KITE
YOKOHAMA 223
JAPAN

DR. J.-P. LABOURG
STATION BIOLOGIQUE D'ARCACHON
2 RUE DU PROFESSEUR JOLYET
ARCACHON (GIRONDE)
FRANCE

DR. J.-P. LAGARDÈRE
STATION MARINE D'ENDOUME
ANTENNE DE LA ROCHELLE-C.R.E.O.
ALLEE DES TAMARIS
17-LA ROCHELLE
FRANCE

JANET LAMBERSON
EPA LABORATORY
HATFIELD MARINE SCIENCE CENTER
NEWPORT OR 97365
USA

MR. P. LAMBERT
AQUATIC ZOOLOGY DIVISION
BRITISH COLUMBIA PROVINCIAL MUSEUM
VICTORIA V8V 1X4
CANADA

DR. PETER F. LARSEN
BIGELOW LABORATORY
WEST BOOTHBAY HARBOR
ME 04575
USA

MRS. D. R. LAUBITZ
CANADIAN MUSEUM OF NATURE
PO BOX 3443, STATION "D"
OTTAWA, ONTARIO K1P 6P4
CANADA

DR. PH. LAVAL
STATION ZOOLOGIQUE
B.P. 28
06230 VILLEFRANCHE-SUR-MER
FRANCE

MR. G. LAWSON
DEPT OF OCEANOGRAPHY
UNIVERSITY OF SOUTHAMPTON
HIGHFIELD
SOUTHAMPTON HAMPSH. SO9 5NH
ENGLAND UK

ERIC A. LAZO-WASEM
PEABODY MUSEUM OF NATURAL HISTORY
DIVISION OF INVERTEBRATE ZOOLOGY
170 WHITNEY AVENUE
PO BOX 6666
NEW HAVEN CT 06511-8161
USA

DR. KYUNG SOOK LEE
DEPT OF BIOLOGY
DANKOOK UNIV.
CHOONG NAM 330-180
SOUTH KOREA

SARA LE CROY
GULF COAST RESEARCH LABORATORY
P.O. BOX 7000
OCEAN SPRINGS MS 39564
USA

DR. M. LEDOYER
CERAM
FACULTÉ DES SCIENCES ET TECHNIQUES DE
ST. JÉRÔME
F-13397 MARSEILLE CEDEX 13
FRANCE

DR. F. P. PEREIRA LEITE
UNIVERSIDADE DE SAO PAULO INSTITUTO
OCEANOGRÁFICO
CIUDADE UNIVERSITARIA
BUTANTA SAO PAULO
BRAZIL

DR. C. D. LEVINGS
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UNIVERSITE CLAUDE BERNARD LYON-I
DEPARTEMENT DE BIOLOGIE ANIMALE
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DR. ALESSANDRA SOMASCHINI
DIPARTIMENTO DI BIOLOGIA ANIMALE E
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FACULTY OF AGRICULTURE
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DR. J.D. THOMAS
DIVISION OF CRUSTACEA
NHB-163
SMITHSONIAN INSTITUTION
WASHINGTON DC 20560
USA

DR. MICHAEL THURSTON
INSTITUTE OF OCEANOGRAPHIC SCIENCES
DEACON LABORATORY
BROOK ROAD
WORMLEY, GODALMING
SURREY GU8 5UB
ENGLAND UK

DR. E. TIBALDI
 LABORATORIA DI ZOOLOGIA
 DELL'UNIVERSITA
 VIA CELORIA 26
 I 20133 MILANO
 ITALY

GUNNAR TEIGSMARK
 INSTITUT FOR FISKERIBIOLOGI
 NORGES FISKERIHÖYSKOLE
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 N-5000 BERGEN
 NORWAY

DR. SERGEJ R. TIMOFEEV
 MARINE BIOLOGICAL INSTITUTE
 VLADIMIRSKAYA STR. 17
 183023 MURMANSK
 RUSSIA

OLEG TIMOSCHKIN
 LIMNOLOGICAL INSTITUTE
 ACADEMY OF SCIENCES
 IRKUTSK
 RUSSIA

JAMIE TRAUTMAN
 SCHOOL OF OCEANOGRAPHY
 OREGON STATE UNIVERSITY
 CORVALLIS OR 97330
 USA

DR. MARIE-JOSE TURQUIN
 UNIVERSITE CLAUDE BERNARD LYON-I
 DEPARTEMENT DE BIOLOGIE ANIMALE
 43 BOULEVARD DU 11 NOVEMBER 1918
 F-69622 VILLEURBANNE CEDEX
 FRANCE

DR. N. TZVETKOVA
 ZOOLOGICAL INSTITUTE
 ACADEMY OF SCIENCES USSR
 V-164 ST PETERSBURG
 RUSSIA

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RISTO VÄINÖLÄ
 DEPT OF GENETICS
 UNIV. OF HELSINKI
 ARKADIANKATU
 00100 HELSINKI
 FINLAND

DR. CARLOS S. VARELA
 INSTITUTO DE ZOOLOGIA
 UNIVERSIDAD AUSTRAL DE CHILE
 VALDIVIA
 CHILE

S. V. VASSILENKO
 ZOOLOGICAL INSTITUTE
 ACADEMY OF SCIENCES USSR
 V-164 ST PETERSBURG
 RUSSIA

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 ENGLAND, UK

DR. D. J. WILDISH
FISHERIES AND OCEANS
BIOLOGICAL SCIENCES BRANCH
BIOLOGICAL STATION
ST. ANDREWS NEW BRUNSWICK EOG 2X0
CANADA

DR. ADELE WILLIAMS
DEPT. OF ZOOLOGY
UNIVERSITY OF BRISTOL
WOODLAND ROAD
BRISTOL AVON
ENGLAND UK

DR J.A. WILLIAMS
DEPT OF OCEANOGRAPHY
THE UNIVERSITY
SOUTHAMPTON HAMPSHIRE S09 5NH
ENGLAND UK

DR. W.D. WILLIAMS
DEPT. OF ZOOLOGY
THE UNIVERSITY OF ADELAIDE
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GERMANY

DR. TORBEN WOLFF
ZOOLOGISK MUSEUM
UNIVERSITETSPARKEN 15
DK-2100 KOBENHAVN Ø
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HIROSHI YAMAGUCHI
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SOUTH AUSTRALIAN MUSEUM
NORTH TERRACE
ADELAIDE SA 5000
AUSTRALIA

DR. C. ZERBIB
LABORATOIRE DE SEXUALITE DES
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UNIVERSITE DE PARIS VI
75230 PARIS CEDEX 05
FRANCE

JUN ZHANG
DEPT OF BIOLOGICAL SCIENCES
OLD DOMINION UNIV.
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