

the Galapagos Islands, and Mantua, Ecuador). The Southern California shell named *A. bailyi* is quite small and appears to be specifically distinct from *gradata* but *A. panamensis* may be only a more coarsely sculptured variety of the Mazatlan species. In all probability *A. panamensis* is the same as "*Byssarca*" *pusilla* Sowerby (Proc. Zool. Soc. London, Part 1, pp. 18-19, 1833), for there seems to be nothing in Sowerby's original description by which to separate it from Bartsch's species, and Carpenter (Cat. Reigen Coll. Mazatlan Moll., p. 142, 1855-57) suggested *pusilla* was very close to *A. gradata*. Furthermore, Carpenter (*id.*, p. 142) stated in his discussion of *gradata* that it varied "considerably in the fineness or coarseness of the cancellated markings" as well as in several other characters, so that it is improbable there are more than two distinct forms of such a variable species worthy of separate names.

The clearing up of old specific confusions is of much value but there are still many old and partially overlooked specific names that need investigation. It is hoped that some conchologist who has a sufficiently large series of shells available will make a careful comparison of the Caribbean *Barbatia domingensis* (Lamarck) which Dall called, apparently erroneously, *Barbatia reticulata*, with the Pacific *Barbatia gradata* and its allies. It is possible that the form called *pusilla* may be identical with the Caribbean Miocene to Recent *B. domingensis* (Lamarck).

TWO NEW POLYGYRAS FROM NORTHERN ARKANSAS

BY HARALD REHDER

Mr. Ernest J. Palmer of the Arnold Arboretum, during a botanical expedition, collected at Calico Rock, in northern Arkansas, two forms of *Polygyra* which are apparently new. Calico Rock, a typical river bottom town, in Izard County, is situated on the White River, which meanders through a rather narrow valley. The snails were found along the dol-

omitic bluffs which contain the valley and which are topped in places by a sandstone cap.

POLYGYRA CLENCHI, new species. Pl. 10, figs. 1-3.

Shell rather solid, depressed, upper surface rather flattened; openly umbilicate, the diameter of the umbilicus one-tenth that of a shell. Whorls about five, flattened on top; last whorl rounded at the periphery. The color is dark straw with a dull luster. The sculpture consists of rather low irregular striations (not as regular as in *P. indianorum* Pils.) and minute, irregular, impressed, spiral lines; nuclear whorls smooth. Aperture subcircular, slightly oblique. Peristome white, thickened, the upper part hardly expanded, the lower part expanded but not reflected. A very thin glaze joins the ends of the peristome.

	Maj. diam.	Min. diam.	Alt.	Whorls
Type	20.9	17.5	10.0	5
Paratype	22.2	18.5	10.5	5
Paratype	21.2	17.9	9.5	5
Paratype	19.8	16.8	9.0	4¾

Holotype: M. C. Z. No. 81347, from the foot of dolomitic bluffs of White River at Calico Rock, Izard County, Arkansas. Collected by Ernest J. Palmer. *Paratypes*: M. C. Z. No. 81348, and Coll. H. Rehder.

This species is close to *P. indianorum* Pils. in general shape, and in the minute spiral lines, but differs in being less regularly and distinctly finely striate, and in being widely umbilicate. It seems to lack the gloss seen in *indianorum*. It also differs in having the upper part of the lip not expanded, being in this respect like *P. roemeri* Pfr. The rest of the lip is however more expanded than in *roemeri*, but not as much as in *indianorum*, where the lip is subreflected. This gives the lip a rather broader appearance than the lip of *roemeri* and *indianorum*.

This species is a member of the Ozarkian fauna, and apparently a close relative of *P. indianorum*, which has been found thus far only south of the Arkansas river.

POLYGYRA PEREGRINA, new species. Fig. 1.

Shell in form and sculpture like *P. troostiana* Lea, but tending to average slightly larger; whorls about 6 to $6\frac{1}{4}$, about a half a whorl more than in specimens of *troostiana* of the same size. Color generally pale corneous, somewhat glossy. Umbilicus smaller than in *troostiana*. The important difference, however, is in the teeth. The parietal tooth is more pointed and prominent; the basal tooth is further out

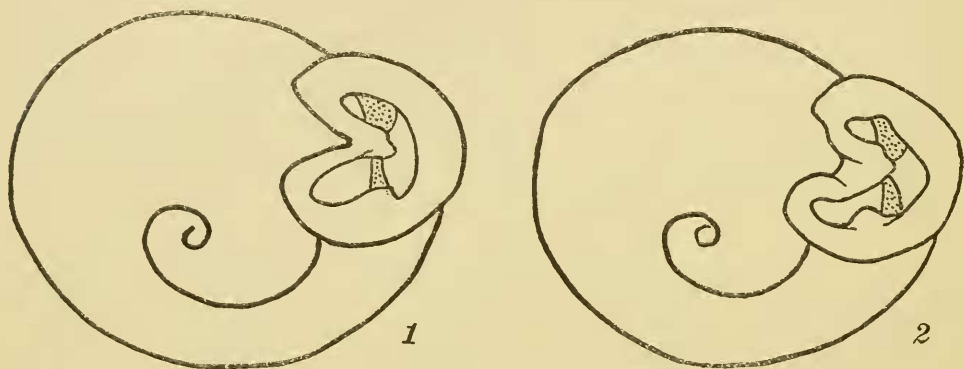


Fig. 1. *Polygyra peregrina* Rehder. Fig. 2. *Polygyra troostiana* Lea.

on the lip, not as deep as in *troostiana*, and is longer and not as conical; the superior palatal tooth is deeper and broader. These differences in the teeth are the important characters, and may easily be seen in figures.

	Maj. diam.	Min. diam.	Alt.	Whorls
Holotype	8	6.9	3.5	6
Paratype	8.2	7.1	3.1	6
Paratype	8.4	7.3	3.8	$6\frac{1}{4}$

Holotype: M. C. Z. No. 81349, from the foot of dolomitic bluffs of White River at Calico Rock, IZARD County, Arkansas. Collected by Ernest J. Palmer. *Paratypes*: M. C. Z. No. 81350, Acad. Nat. Sci. Phila. No. 157620, and Coll. H. Rehder, from same locality.

As may be gathered from the description, this species is closely allied to *Polygyra troostiana*, differing however distinctly and constantly in the nature of the teeth. Its habitat

is 350 miles west of the region where *troostiana* is found, across the Mississippi River, and is apparently a member of the Cumberlandian fauna as defined by Pilsbry (Mollusca of the Ozarkian Region, Proc. Acad. Nat. Sci. Phila., p. 531 [1906]).

It is quite unusual to find two new forms of *Polygyra* in one locality in the Middle West, but I am certain even more will be uncovered when the Ozarkian region is thoroughly explored, especially northern Arkansas.

LYMNAEA (FOSSARIA) PERPLEXA IN SOUTHERN CALIFORNIA

BY WENDELL O. GREGG

A small fresh-water gastropod which has been puzzling me for the past ten years has proven to be *L. (Fossaria) perplexa* F. C. Baker and Junius Henderson.¹ This well-named species first came to my attention in 1922, at which time specimens were incorrectly identified by H. Hannibal as *L. truncatula*. The specimens were found in Hallenbeck Park, Los Angeles, around the base of a leaking hydrant. The following year specimens were taken in a small lake in Elysian Park and also clinging to moist flowerpots in a greenhouse in Lincoln Park, Los Angeles. Most of these specimens were quite immature. In 1924 two specimens were taken in the Rio Hondo near Montabello and again in 1928 about three dozen specimens were taken in a small creek north of the Los Angeles River and opposite Griffith Park. On June 8, 1930, a small colony was found along the creek in Big Tujunga Canyon, about one mile below the dam. Later that year specimens were found in a small brook near Ave. 64, in La Loma Lake, brook connecting La Loma Lake with the Arroya Seco, and Arroya Seco Creek, below La Loma Drive, all four localities in Pasadena. Specimens taken at 6,400 ft.

¹ Nautilus, XLII, 103-104, 1929.