NOTES ON THE SPECIES OF *ALLOSQUILLA* AND *PLATYSQUILLOIDES* (CRUSTacea: STOMATOPoda)

Carlo Froglia and Raymond B. Manning

Abstract.—A second specimen of an *Allosquilla* from the Adriatic Sea is reported, and *A. adriatica* Stevcic, 1979, is shown to be a synonym of *A. africana* (Manning, 1970). *Allosquilla* is compared with the related *Platysquilla*, *Mexsquilla*, and *Platysquilloides*, and the second species of *Allosquilla*, *A. lillyae* Manning, 1977, is transferred to *Platysquilloides*.

The genus *Allosquilla* was erected by Manning (1977:64) for two species from off West Africa, *A. africana* (Manning, 1970) and *A. lillyae* Manning, 1977. *Allosquilla africana* was known from the unique holotype, a female 39 mm long, taken at a depth of 174–148 m off the Niger delta, and *A. lillyae* was known from fragments of two specimens taken in depths of 260–225 and 345 m in the Azores. Two years later a third species, *A. adriatica* Stevcic (1979:642), based on our then unpublished account (Manning and Froglia 1979:178), was described from a female, 67 mm long, taken in the Adriatic Sea in 130–150 m.

Manning (1977:65) pointed out that the species then assigned to *Allosquilla* differed from other genera of lysiosquilloids in lacking the mandibular palp, having four rather than five epipods, and in the number of papillae on the antennal protopod. *Allosquilla africana* was characterized as having two papillae on the antennal protopod, one small one mesially and one larger one ventrally, and *A. lillyae* was characterized as having one mesial and two ventral papillae. *Allosquilla adriatica* also was characterized as agreeing with *A. lillyae* and differing from *A. africana* in having one mesial and two ventral papillae (Manning and Froglia 1979:179).

Subsequently, Holthuis (1984:132) reported two specimens of *A. lillyae* from the Azores in 52 m; one of these, a female, 42 mm long, was the first intact specimen of the species to be studied.

The discovery and description by Holthuis of a complete specimen of *A. lillyae* and the capture of a second specimen of a species of *Allosquilla* in the central Adriatic Sea by one of us (C.F.) prompted us to reexamine the species of *Allosquilla*, for the second specimen differed from the holotype of *A. adriatica* in several features that initially suggested it might belong to a different species.

The Status of *Allosquilla adriatica*

The second specimen of *A. adriatica* from the Adriatic (Fig. 1), an adult female 70 mm long with ripe ovaries, was taken at a depth of 216–222 m during trawling investigations in the western Pomo Pit (net shot 42°50′N, 14°33′E, hauled 42°48′N, 14°47′E), a few miles south of the type locality, on 7 March 1981. It is preserved in the reference collection of the Istituto di Ricerche sulla Pesca Marittima in Ancona. We are able to add some color notes made in the field from the living specimen, and some data on morphology to the original description.

In life, the background color is olive brown, with the deep pink ovaries clearly visible through the background color. The rostral plate, ocular peduncles, and antennal peduncles are light brown, and the cornea is green. The raptorial claw is covered with
pink chromatophores, with a band of orange chromatophores proximally and brown chromatophores distally on the merus, and an orange spot on the propodus at the articulation with the dactylus. The thoracopods, pleopods, and uropods are clear. The edge of the telson is marked by a brownish white line.

Other measurements of this specimen, in mm, are as follows: carapace length 11.7; rostral plate length 3.3, width 3.2; cornea width 3.2; antennal scale length 3.9; telson length 6.1, width 10.4. There are only nine teeth on the dactylus of the claw (Fig. 1a); there are ten teeth on the claw of the holotype. There are five movable teeth on the uropod, the proximalmost very small, triangular, the remainder larger, spatulate; the holotype had three or four movable teeth on the uropod. The rounded lobe on the inner distal margin of the uropodal endopod is ornamented with 10–11 setae.

The main morphological difference between this specimen and the holotype of _A. adriatica_ is in the posterior armament of the telson. The second marginal projection denticle is enlarged, so that the telson has three rather than two pairs of major, fixed marginal teeth lateral to the movable submedians, each separated by an intervening denticle. Also, the median dorsal projection on the telson (Fig. 1b) is asymmetrical; it probably has been damaged.

This specimen, like the holotype of _A. adriatica_ (Fig. 2a, b), has one mesial and two ventral papillae on the antennal protopod (Fig. 2c, d). Reexamination of the holotype of _A. africana_ reveals that it, too, has the same number of papillae (Fig. 2e, f). That was one of the more important characters used by Manning and Froglia (1979: 180–181) to distinguish these two species.

Manning and Froglia also used the following characters to separate the two species:

1. The submedian denticles are in two convex rows in _A. africana_, one transverse
row in *A. adriatica*. In the second Adriatic specimen, these denticles are arranged in two convex rows (Fig. 1c), as in the holotype of *A. africana*.

2. Both species were interpreted as having four intermediate marginal denticles on each side of the midline of the telson, with the first and third bluntly triangular and larger than the spiniform second and fourth denticles in *A. adriatica* and the first and third blunter but not much larger in *A. africana*. The second Adriatic specimen indicates that the telson has four distinct marginal teeth separated by intervening denticles, with the mesial one or two intermediate teeth smaller than the lateral two; the smallest of these marginal teeth is a low lobe flanking the movable submedian tooth. In this feature the holotypes of both *A. africana* and *A. adriatica* differ from the second Adriatic specimen.

3. The anterior prominences of the telson are less prominent in *A. adriatica* than in *A. africana*. This may be a function of size, for the holotype of the latter species is much smaller than either of the two Adriatic specimens.

4. Differences were noted in the armature of the basal segments of the walking legs in the two species. A reexamination of this feature in the types of the two species reveals that it is the same in all three specimens.

We conclude that *A. adriatica* is a synonym of *A. africana*, and that the holotype of *A. africana* is much younger than either of the two specimens collected in the Adriatic.

*Allosquilla* can be characterized as having 1 mesial and 2 ventral papillae on the antennal protopod and 4 pairs of fixed marginal teeth on the telson, the inner one or two of which can be much smaller than the lateral two; the marginal teeth are separated by smaller intervening denticles. In addition, *Allosquilla* lacks a distinct dorsal spine on the antennal protopod (Fig. 2a–f) and has
era in having four papillae on the antennal protopod and slender, non-spatulate movable spines on the outer margin of the uropodal exopod, and Platysquilloides differs from all of these genera in having a distinct dorsal spine on the antennal protopod.

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Literature Cited


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Genera Related to Allosquilla and Platysquilloides

Allosquilla and Platysquilloides share many characters with two other genera of the family Nannosquillidae, Platysquilla Manning, 1967, and Mexisquilla Manning and Camp, 1981 (see Manning and Camp 1981 for accounts of these other genera). They differ from Platysquilla in having only one mesial papilla on the antennal protopod, a much broader cornea, only four rather than five epipods, and a much smaller median projection on the telson; they also differ in lacking a pair of spines ventrally on the sixth abdominal somite. The eyes of Platysquilla resemble those of Mexisquilla and Platysquilloides in being somewhat broadened, not distinctly bilobed as in Allosquilla. Allosquilla and Platysquilloides differ from Mexisquilla Manning and Camp, 1981, in several features, including the anteriorly spined rostral plate, having four rather than three epipods, and in overall size; species of Mexisquilla are not known to exceed 20 mm in length, whereas species of Allosquilla are as large as 70 mm and species of Platysquilloides as large as 67 mm are known (Howells, Karp, and Langton 1980).

Platysquilla differs from all of these gen-
A SMALL TRAP FOR COLLECTING CRUSTACEANS IN SHALLOW WATER

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Abstract.—Results from using a small, inexpensive trap, made from plastic water-sampling bottles, to collect crustaceans in shallow water, are reported. The traps can be used to collect both decapods and microcrustaceans.

In 1982, M. Tiirkay published a summary of results on the use of a small trap for collecting shrimps. In the Aegean Sea, the trap, developed by H. Thiel, University of Hamburg, and Tiirkay, yielded representatives of eight species of caridean shrimps, of which one, Lysmata seticaudata (Risso), was collected only with the trap.

Tiirkay's paper was originally presented at the COLLOQUIUM CRUSTACEA DECAPODA MEDITERRANEANA II, held in Ancona, Italy, in 1979, and I had an opportunity to hear the original presentation. While listening to Tiirkay's talk I realized that he had come up with an excellent supplement to any field kit: a small, inexpensive, portable trap for decapods.

The Trap

The Thiel-Tiirkay traps (Fig. 1) can be made from a 1-liter narrow-mouthed polyethylene bottle, with both the top and bottom cut off. The top is inverted and fastened into the end of the bottle to form a funnel-shaped opening. Completed traps measured 12.5 cm long, 9 cm in diameter, with an opening of 2.5 cm. The bottom is replaced by any mesh desired, held in place with a hose clamp. A weight may be attached at the mouth end to hold the trap on the bottom. The narrow mouth allows only small animals to enter the trap, which can be baited and emptied by removing the hose clamp. As many traps as desired can be run in a string.

Results

My first opportunity to use the trap came while I was on Carrie Bow Cay, Belize, in 1982. Three traps, baited with leg segments of spiny lobsters, were set in about four feet of water in coral and shell rubble off the dock on the western side of the island. Over a 24-hour period, no decapods were taken in the traps, and after about 36 hours still no decapods were taken. The traps were then essentially abandoned, forgotten for another two days.

When the traps were finally raised, they were allowed to drain upon the dock, where a variety of small crustaceans appeared in the drain water. Included were more than 50 specimens of a red nebaliacean; one cyclopoid, one calanoid, and eight harpacticoid copepods; three gammaridean amphipods; two cirolanid isopods; eight myodocopid and three podocopid ostracodes; and one small spider crab. This catch demonstrated that the traps could be used to collect crustaceans other than decapods.

In October 1982, these traps were used in several of the marine caves in Bermuda (see Sket and Iliffe 1980), where Thomas M. Iliffe, C. W. Hart, Jr., and I were studying the cave shrimps (Hart and Manning 1981). These little traps, usually baited with fish, yielded up to four specimens of the Cuban cave shrimp, Barbouria cubensis (Von Martens), when left overnight. In addition, in Wonderland Cave, formerly open as a commercial cave for tourists, a trap set and left...

References


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