2.2.4 **FAMILY SYNAXIDAE** Bate, 1881

Synaxidae Bate, March 1881, *Annals Magazine Natural History*, (5)7:228.

**Type Genus:** Synaxes Bate, March 1881.

**Synonyms:** Araeosternidae De Man, July 1881, *Notes Levden Museum*, 3: 137.

**Type Genus:** Araeosternus De Man, July 1881.

This family consists of two genera and a total of three species.

**Key to Genera:**

1a. Antennular plate with stridulating organ (Fig. 309a). Rostrum transversely oval, wider than long. Lateral margin of carapace with distinct teeth behind anterolateral tooth (Fig. 309b). Posterior margin of pleura of abdominal somites 2 to 5 with a deep and abrupt excavation near the top, most distinct in somites 4 and 5. Total length to 27 cm .................................... *Palibythus*

1b. Antennular plate without stridulating organ (Fig. 310a). Rostrum triangular, longer than wide. Lateral margin of carapace without teeth behind anterolateral tooth (Fig. 310b). Posterior margin of abdominal pleura evenly sinuously rounded, without a deep and sudden concavity near the top. Maximum known length 20 cm ........................................... *Palinurellus*

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*Palibythus* Davie, 1990


**Type Species:** By original designation and monotypy: *Palibythus magnificus* Davie, 1990.

A single species is known of this genus.
**Palibythus magnificus** Davie, 1990

**Type**: Type locality of *Palibythus magnificus*: "off coast of Savaii, Western Samoa, trapped ... 220-275 m". Female holotype, QM, no. W 16402, 2 female paratypes, QM, no. W 15941.

**Geographical Distribution**: Central Pacific: W. Samoa and Tuamotu Archipelago (Fig. 312).

**Habitat and Biology**: Depth range between 220 and 300 m.

**Size**: Carapace length in females 13.1 to 13.7 cm, corresponding with a total length of about 27 cm. Males unknown.

**Interest to Fisheries**: So far none, as the species seems to be very rare and lives in deep water. The three females from Samoa were obtained in a fish trap, evidently during commercial or exploratory fishing.

**Literature**: Original description.

**Remarks**: The specimens from the Tuamotu Islands are only known from photographs, but were "almost definitely this species" (Davie, 1990:688).
**Palinurellus** Von Martens, 1878

**Type Species**: by monotypy: *Palinurellus gundlachi* Von Martens, 1878


**Synaxes** Bate, 1881 (March), *Annals Magazine Natural History*, (5)7:228. Type species, by monotypy: *Synaxes hybridica* Bate, 1881 (March). Gender feminine.

**Araeosternus** De Man, 1881 (July), *Notes Leyden Museum*, 3: 137. Type species, by monotypy: *Araeosternus wieneckii* De Man, 1881 (July). Gender masculine.

Two species are recognized in this genus, neither of commercial importance. If *Phyllamphion* is based on larvae of the present genus, which, in the light of recent investigations seems most likely, the generic name *Phyllamphion* is the oldest for the genus and therefore has to replace *Palinurellus*.

The two species are very similar. Some of the alleged differences proved to be due to abnormalities (e.g., the shape of the rostrum in the holotype of *P. wieneckii*), incorrect observations, or incorrect interpretation of the variability of characters. As both species are rather rare the study of larger series of specimens is necessary to clarify their taxonomic status.

**Key to Species**:

1a. Western Atlantic . . *P. gundlachi* (Fig. 313)

1b. Indo-West Pacific . *P. wieneckii* (Fig. 315)
Type locality of *Phyllamphion reinhardti*: "entre la Pointe orientale de la Guadeloupe (Pointe des Châteaux) et le petit archipel situé dans le sud-est connu sous le nom de Petite-Terre". Holotype larva in MOM, at present not located.

**Geographical Distribution**: Western Atlantic: Bermuda, Bahama islands, southern Florida, Yucatán, Caribbean Arc (Cuba to Barbados), Curaçao, N.E. Brazil (Pernambuco) (Fig. 314).

**Habitat and Biology**: Depth range from 1.5 to 35 m; found in rather inaccessible places among rock and coral. Rather scarce.

**Size**: Maximum total length about 15 cm.

**Interest to Fisheries**: Caught by hand, and occasionally in traps, but of no interest to commercial fisheries.

**Local Names**: MARTINIQUE: Vraie langouste de metropole; USA: Copper lobster (Florida).


**Remarks**: There appears to be little doubt that the larvae described as *Phyllamphion* belong to the present genus. Should this be confirmed, the correct name of the present species must be *Phyllamphion gundlachi* (Von Martens, 1878).
Araeosternus wieneckii (De Man, 1881)

**Synonyms:** ? *Cancer cassideus* Forster, 1782; ? *Phyllamphion elegans* Reinhardt, 1849; *Palinurellus gundlachi wieneckii*. Gruvel, 1911.

**FAO Names:** En - Indo-Pacific furry lobster; Fr - Cacahouete indopacifique; Sp - Langosta del Indo-Pacifico.

**Type:** Type locality of *Cancer cassideus*: “Bewohnt das Indische Meer”. “Habitat in Mari Indico” “Zwischen dem Vorzeuge der guten Hoffnung und Indien im grossen Ozean, dreihundert grosse Seemeilen weit von irgend einem Lande”. Depository of types unknown.

Type locality of *Phyllamphion elegans*: “har hjemme i det chinesiske Hav, hvor jeg dog kun en Gang har erholdt 3 Exemplarer, som fangedes med Slaebenaettet i nogle Miles Afstand fra Öen Luncon at Par Timer efter solnedgang (d. 11. Juni 1846)” (has its home in the Chinese Sea, where I once obtained 3 specimens caught with a drag net at several miles off the island of Luzon, a few hours after sunset on 11 June 1846). Depository of syntypes unknown.

Type locality of *Araeosternus wieneckii*: “Rat-Island near Benkuler (Sumatra)” (= Pulau Tikus, S.W. coast of Sumatra, Indonesia. about 3°50'S 102° 11'E) Holotype male in RMNH no. D 965

**Geographical Distribution:** Indo-West Pacific region: Arabian coast of Red Sea, East Africa (larvae), South Africa (Natal, juvenile), western Indian Ocean (larvae), Mauritius, Thailand, (Phuket Island), Japan (Ryukyu Islands), Philippines (larvae), Indonesia (Sumatra, Borneo), New Guinea (Kirwina Islands), Solomon Islands (Savo Id.), Caroline Islands (Ifaluk), New Caledonia (larvae and juveniles), New Hebrides (larvae), Hawaiian Islands (Oahu, Hawaii, Maui), Tuamotu Islands (larvae and juveniles) (Fig. 316).

**Habitat and Biology:** In shallow water (from 9 to 27 m) on coral reefs and in marine caves. Probably nocturnal. Larvae planktonic.

**Size:** Maximum total body length about 20 cm, maximum carapace length about 8 cm. Body length usually around 10-14 cm.

**Interest to Fisheries:** Very slight at present: the species is taken only occasionally, being too rare for a commercial Fishery. It is taken by hand and sometimes gets entangled in gill nets. It has caught the attention of the tropical marine aquarium trade, but is too infrequently taken to be of great economic value. The only specimen so far reported from Thailand, was offered for sale in a fancy glass case as a tourist souvenir.

**Local Names:** HAWAII: Mole lobster; MOZAMBIQUE: Lagosta peluda; THAILAND: Kung boran.

**Literature:** Fischer & Bianchi (eds), 1984:vol. 5.