

Distribution: Eastern Pacific: Alaska to Oregon, U.S.A.

Habitat: Depth 38 to 630 m (fished in 80 to 150 m). Bottom green mud. Marine.

Size: Maximum total length 200 mm; maximum carapace length 39 mm.

Interest to Fishery: In the area of British Columbia the importance of the species is minor compared to that of the *Pandalus* species. In the Bering Sea and Gulf of Alaska the species represents 5 to 15% of the shrimp catch (Longhurst, 1970:271); exploitation of larger areas may sharply increase its production. The species is sold as such, whole, peeled and cooked.

*Pandalopsis japonica* Balss, 1914

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*Pandalopsis dispar japonica* Balss, 1914, Abh.Bayer.Akad.Wiss., (suppl.) 2(10):32

Synonymy: ?*Pandalopsis multidentata* Kobjakova, 1936.

FAO Names: Morotoge shrimp (En), Crevette morotoge (Fr), Camarón morotoje (Sp).

Local Names: Morotoge aka ebi (Japan).

Distribution: Indo-West Pacific: Sea of Okhotsk and Sea of Japan; Siberia; Korea; Japan.

Habitat: Depth 64 to 650 m. Marine.

Size: Maximum total length 150 mm.

Interest to Fishery: Yoshida (1941:25) listed the species as being of economic importance in Korea.

*Pandalus borealis* Krøyer, 1838

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*Pandalus borealis* Kroyer, 1838, Naturhist.Tidsskr., 2:254

Synonymy: *Dymas typus* Krøyer, 1861; *Pandalus borealis typica* Retovsky, 1946.

FAO Names: Northern shrimp (En), Crevette nordique (Fr), Camarón norteño (Sp).

Local Names: Dybvannsreke (Norway), Dybhavsreje, Store røde Dybhavsreje, Drainmensreje, Norsk reje, Svelviksreje (Denmark), Nordhavsräka (Sweden), Pohjanmeren katkarapu (Finland), Северный ШРИМС U.S.S.R.), Noorse garnaal (Netherlands), Pink shrimp, Deepwater prawn (Great Britain, Canada, U.S.A.), Kampalampi (Iceland), Kingugssvaq, Râfa kingugpak (Greenland), Deep-sea prawn, Great northern prawn, Crevette nordique (Canada), Northern shrimp (U.S.A.), Hokkoku aka ebi, Hokkai ebi (Japan).

Literature: Sars, 1900:31, Pls. 9,10; Hjort & Ruud, 1938:1-144, Figs. 1-21.

Distribution: North Atlantic: Spitsbergen and Greenland south to the North Sea and to Massachusetts (U.S.A.). North Pacific: Bering Sea to S.E. Siberia, Japan and Oregon (U.S.A.). The taxonomic status of the North Pacific form, usually considered a subspecies *Pandalus borealis eous* Makarov, 1935, is not fully clear yet.

Habitat: Depth 20 to 1 380 m. Bottom clay and mud. Marine.

Size: Maximum total length 120 mm (♂), 165 mm (♀).

Interest to Fishery: Commercially this is one of the most important carideans of the North Atlantic; only *Crangon crangon* may be more important. Longhurst (1970:258) called it the principal product of the prawn fisheries of the northwestern Atlantic, being concentrated off Greenland, while

in more recent years also more to the south fisheries for the species have started, e.g., in the Gulf of St. Lawrence, the Bay of Fundy and the Gulf of Maine (as far south as Gloucester, Mass.). There is an intensive fishery around Iceland and a most important one off the Norwegian coast. In the Kattegat and Skagerak it is fished for by Danish trawlers. In the northern and central North Sea Danish, Norwegian, British, German and Dutch trawlers fish for the species. Experiments for the aquaculture of this species have been undertaken in England:

In the Northern Pacific *Pandalus borealis eous* also is of economic importance. Longhurst (1970:270-272) mentioned that the species is important on the west coast of Kamchatka, while in the Bering Sea and Gulf of Alaska it forms 80 to 90% of the shrimp catch. Yoshida (1941:23) listed the species among the commercial shrimps of Korea. Off the west coast of Canada and Washington (U.S.A.) the species is trawled commercially and with *P. jordani* forms the most important species in the fishery. According to U.S. Bureau of Commercial Fisheries (1958:12) this shrimp is landed in Washington, Oregon and California, U.S.A.

*Pandalus danae* Stimpson, 1857

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*Pandalus danae* Stimpson, 1857, Proc.Boston Soc.Nat.Hist., 6:87

Synonymy: *Pandalus franciscorum* Kingsley, 1878

FAO Names: Dock shrimp (En), Crevette des quais (Fr), Camarón de muelle (Sp).

Local Names: Coon stripe shrimp, Coon-striped shrimp, Dock shrimp (Canada, U.S.A.), California prawn (U.S.A., see R. Rathbun, 1893:821).

Literature: Schmitt, 1921:44, textfig. 35, Pl. 13, Fig. 3.

Distribution: Eastern Pacific: Alaska, U.S.A. to California, U.S.A.

Habitat: Depth 18 to 200 m. Bottom sand, gravel. Marine.

Size: Maximum total length 38 mm (♂), 105 mm (♀); maximum carapace length 22 mm (♂), 29 mm (♀).

Interest to Fishery: Butler (1968:523) listed the commercial Pandalidae of British Columbia, Canada, "in order of decreasing importance" of the six species *P. danae* came last. R. Rathbun (1884:321) stated that the species was "commonly brought to the San Francisco market, and is caught in the open ocean" off San Francisco.

*Pandalus goniurus* Stimpson, 1860

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*Pandalus goniurus* Stimpson, 1860, Proc.Acad.Nat.Sci.Phila., 1560:36

Synonymy: *Pandalus dapifer* Murdoch, 1884.

FAO Names: Humpy shrimp (En), Crevette gibbeuse (Fr), Camarón jiboso (Sp).

Local Names: Humpy shrimp (U.S.A.), Benisuji ebi (Japan).

Literature: M.J. Rathbun, 1904:38, Pl. I, Fig. 3.

Distribution: Northern Pacific: Bering Sea to Sea of Japan and Washington, U.S.A.

Habitat: Depth 5 to 450 m. marine.

Size: Maximum total length 142 mm; maximum carapace length (exclusive of rostrum) 70 mm.

Interest to Fishery: This is the commonest Pandalid in the N.W. Pacific and in the Okhotsk Sea it seems to be present in commercially attractive quantities (Longhurst, 1970:276). In the Bering Sea the importance of the species is far less (being less than 5% of the total Pandalid stock), but

it seems to be more important in the Anadyr Gulf (= Anadyrskiy Zaliv), N.E. Siberia (Longhurst, 1970:271). This species, together with *P. hypsinotus*, is taken in small quantities in Alaska, but it is far less important than either *P. borealis* or *Pandalopsis dispar* (cf. Harry, 1964:64).

*Pandalus hypsinotus* Brandt, 1351

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*Pandalus hypsinotus* Brandt, 1851, In Middendorff, Reise N. und O. Sibiriens, 2:(1):125

Synonymy: *Pandalus gracilis* Stimpson, 1860.

FAO Names: Coonstripe shrimp (En), Crevette à front rayé (Fr), Camarón malacho (Sp).

Local Names: Humpback shrimp (Canada, U.S.A.), King shrimp (Canada), Coon-stripe shrimp (U.S.A.), Toyama ebi, Taraba ebi, Botan ebi (Japan).

Literature: M.J. Rathbun, 1904:46, Pl. 2, Fig. 5.

Distribution: Northern Pacific: Bering Sea to Washington, U.S.A., Korea and N. Japan.

Habitat: Depth 5 to 400 m. Marine.

Size: Maximum total length 209 mm (♂), maximum carapace length (without rostrum) 43 mm.

Interest to Fishery: This species dominates the prawn catch off Korea (Longhurst, 1970:270; Yoshida, 1941:22). In the Bering Sea it is of minor importance, forming with *P. goniurus* and *P. platyceros* less than 5% of the prawn catch. Off British Columbia *Pandalus hypsinotus* is commercially "of minor importance" (Butler, 1964:1 428).

*Pandalus jordani* M.J. Rathbun, 1902

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*Pandalus jordani* M.J. Rathbun, 1902, Proc.U.S.Natl.Mus., 24:900

FAO Names: Ocean shrimp (En); Crevette océanique (Fr), Camarón oceánico (Sp).

Local Names: Ocean shrimp (U.S.A.: official, name in California), Smooth pink shrimp, Pink shrimp (Canada, U.S.A.), Ocean pink shrimp (U.S.A.).

Literature: Dahlstrom, 1970:1 377-1 416, Figs. 1-17.

Distribution: Eastern Pacific: Alaska to San Diego, California, U.S.A.

Habitat: Depth 36 to 457 m (fished in depths of 73 to 237 m). Bottom sand and mud, green mud. Marine.

Size: Maximum total length 161 mm; maximum carapace length 18 mm (♂), 30 mm (♀).

Interest to Fishery: Butler (1950:34) stated that the species in British Columbia had been "found in limited commercial quantities", about twenty years later it was of major commercial importance there, being trawled for food, used as such, whole or peeled and cooked. Off Washington and Oregon (U.S.A.) the species supports a trawl fishery (Longhurst, 1970:272). Off California also the fishery for this species is of major importance; most of the catch here is vacuum-packed, small amounts are sold fresh or cooked. In 1962 Washington produced 1.4 million lbs of this species, Oregon 2.0 million lbs and California 1.8 million lbs (Harry, 1964:66).

*Pandalus kessleri* Czerniavsky, 1878

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*Pandalus kessleri* Czerniavsky, 1878, Trav.Soc.Natural.St.Pétersbourg, 7:25

Synonymy: *Pandalus kessleri fluviatilis* Czerniavsky, 1878; *Pandalus latirostris* M.J. Ratbun, 1902.

FAO Names: Hokkai shrimp (En), Crevette hokkai (Fr), Camarón de Hokkai (Sp).

Local Names: Hokkai ebi (Japan), Травяной щримс (U.S.S.R.).

Literature: Urita & Nomura, 1936:235-252, Figs. 1-4.

Distribution: Western North Pacific: S.E. Siberia; Korea; Sachalini N. Japan. Around 1959 the species has been introduced into the Black Sea.

Habitat: Depth 0.5 to 9 m; there are records from as deep as 300 m. Marine.

Size: Maximum total length 157 mm; maximum carapace length (rostrum excluded) 31 mm.

Interest to Fishery: Longhurst (1970:270) indicated that this species, together with *P. hypsinotus* is dominant in the catches in North Korean waters. Yoshida (1941:24) also listed it as of economic importance in Korea. Urita & Nomura (1936) state that it "may be looked on as a special product of Saghalien and Hokkaidô . . . In Saghalien, it is the only commercial shrimp that is canned". More recently Tanikawa (1971:182) also commented on the importance of the species in Hokkaido and the Kurile Islands, in Hokkaido the annual production being about 100 tons. Kobjakova (1966:203) also indicated that the species is "of commercial value in the Sea of Japan, near South Sakbalin and at the southern Kuriles" (cf. also Ivanov, 1955:16-23).

*Pandalus montagui* Leach, 1814

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*Pandalus montagui* Leach, 1814, In Brewster, Edinburgh Encycl., 7:432

Synonymy: *Astacus maculatus* (Montagu MS) Leach, 1814; *Pandalus annulicornis* Leach, 1815; *Astacus (Pandalus) annulicornis* - Moore, 1839; *Pandalus levigatus* Stimpson, 1853; *Pandalus leptorhynchus* Kinahan, 1558; ?*Boreocaris moebiusi* Ortmann, 1693.

FAO Names: Aesop shrimp (En), Crevette ésope (Fr), Camarón esópico (Sp).

Local Names: Blomsterreke, Spraglete reke (Norway), Rekekongen (Denmark), Felsengarnele, Rote Schwimmgarnele (Germany), Pink shrimp, Pink prawn, Aesop shrimp, Aesop prawn, Prawn, Sprawn, Shank, Fleetwood prawn (Great Britain), Striped pink prawn, Striped pink shrimp (Canada).

Literature: Simpson, Howell & Warren, 1970:1 225-1 249, Figs. 1-4.

Distribution: Northern Atlantic: Arctic Ocean south to Nova Scotia, Canada, the British Isles and the southern North Sea near Belgium.

Habitat: Depth 4 to 700 m (most common between 20 and 100 m). Bottom sand, mud, gravel and rock, usually a hard substratum. Marine.

Size: Maximum total length 160 mm.

Interest to Fishery: In the northeastern Atlantic region the species "is only fished commercially by Britain" (Longhurst, 1970:265). On the whole the importance is small. In the northwestern Atlantic the species with two species of *Spirontocaris* is "only exploited incidentally to the fishery for *Pandalus borealis*" (Longhurst, 1970:258). Couture (1971:42) reported that a fishery of secondary importance for this species existed in Denmark, the Farøe Islands, Iceland, Norway, Sweden, Holland, Belgium and England, and that it also has commercial possibilities on the east coast of Canada.

*Pandalus nipponensis* Yokoya, 1933

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*Pandalus nipponensis* Yokoya, 1933, J.Coll.Agric.Imp.Univ.Tokyo, 12:17

FAO Names: Botan shrimp (En), Crevette botan (Fr), Camarón botán (SP).

Local Names: Botan ebi (Japan).

Distribution: Indo-West Pacific: Korea; Japan.

Habitat: Depth 76 to 533 m. Marine

Size: About 85 mm.

Interest to Fishery: Yoshida (1941:22, Pl. 13, Fig. 3) figured this species in his list of economically important Macrura of Korea, but, apart from including it in his key, did not treat it in the text. Yasuda (1957:30) listed the species as important in the shrimp fishery of the Inland Sea of Japan near Seto.

*Pandalus platyceros* Brandt, 1851

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*Pandalus platyceros* Brandt, 1851, In Middendorff, Reise N. und O. Sibiriens, 2(1):123

Synonymy: *Pandalus pubescentulus* Dana, 1852.

FAO Names: Spot shrimp (En), Crevette tache (Fr), Camarón manchado (Sp).

Local Names: Prawn, Spot shrimp (Canada, U.S.A.), Hokkai ebi (Japan).

Literature: Butler, 1970:1 289-1 315, Figs. 1-7.

Distribution: Northern Pacific: Bering Strait south to S. California, and to Japan and Korea.

Habitat: Depth 4 to 437 m. Bottom hard on fairly steep edge. Marine.

Size: Maximum total length 253 mm; maximum carapace length 61 mm.

Interest to Fishery: Along the Pacific American coast it is of commercial importance (of major importance in British Columbia). It is mainly caught with traps, but is also obtained incidentally in trawling for other species of Pandalidae. According to Longhurst (1970:271,272) in the Bering Sea and the Gulf of Alaska the catch of this species, together with that of *P. goniurus* and *P. hypsinotus* constitutes less than 5% of the total shrimp catch. Trap catching for *P. platyceros* in California was of negligible importance. In England aquaculture experiments with this species have been carried out, but without too encouraging results for commercial breeding (Forster & Wickins, 1972:9-10).

*Parapandalus narval* (Fabricius, 1787)

PANDL Parapnd 1

*Astacus narval* Fabricius, 1787, Mantissa Insectorum, 1:331

Synonymy: *Cancer narval* - Gmelin, 1789; *Palaemon narval* - Bosc, 1801; *Palaemon pristis* Risso, 1816; *Pandalus narval* - Desmarest, 1823; *Pontophilus pristis* - Risso, 1827; *Pandalus pristis* - Roux, 1831; *Palaemon tarentinum* Costa, 1844; *Pandalus tarentinus* - Hope, 1851; *Nisea formosa* (Risso MS) Monod, 1931. In older literature the name *Parapandalus narval* has often incorrectly been used for *Plesionika edwardsii*.

FAO Names: Narwal shrimp (En), Crevette narval (Fr), Camarón narval (Sp).

Literature: Zariquiey Alvarez, 1968:III; Crosnier & Forest, 1973:221, Fig. 69a.

Distribution: Eastern Atlantic: Western Mediterranean, including the Adriatic Sea; from Madeira and the Canary Islands south to Angola. Also reported from the Western Indian Ocean and the Red Sea.

Habitat: Depth 10 to 910 m. Bottom mud and muddy sand. Marine.

Size: Maximum total length 95 mm, without rostrum.

Interest to Fishery: According to Figueira (1960:4) "In Madeira there is a small commercial fishery for the species". Zariquiey Alvarez (1946:68), mentioned that it is caught by the "vacas" (= trawlers) off the Catalonian coast of Spain. It is found on the Spanish fishmarkets usually in small quantities with other prawns. Brian (1941:36) reported it from the fishmarket at Genoa, Italy, but it was there of little commercial importance. Dieuzeide (1931:132) remarked that he had never seen the species (which he dealt with under the name *Parapandalus pristis*) on the fishmarket of Algiers, while *Plesionika edwardsii* (mentioned as *Parandulus narval*) was abundant there. Heldt & Heldt (1954:10) listed the species among the edible shrimps of Tunisia. Guézé (1976:275) in the course of fishery experiments with traps in 150 to 350 m off Reunion, found the species at times abundant and of possible, but restricted, economic interest.

*Parapandalus spinipes* (Bate, 1888)

PANDL Parapnd 2

*Plesionika spinipes* Bate, 1888, Rep.Voyage Challenger, (Zool.), 24:646

Synonymy: *Pandalus (Parapandalus) serratifrons* Borradaile, 1899; *Pandalus (Parapandalus) tenuipes* Borraidaile, 1899; *Pandalus (Parapandalus) spinipes* - Alcock, 1901; *Plesionika spinipes grandis* Doflein, 1902.

FAO Names: Oriental narwal shrimp (En), Crevette narval orientale (Fr), Camarón narval orientale (SP).

Literature: De Man, 1920:142, Pls. 12;13, Fig. 33.

Distribution: Indo-West Pacific: Red Sea to Japan, Melanesia and the Kermadec Islands.

Habitat: Depth 50 to 805 m. Marine.

Size: Maximum total length 130 mm.

Interest to Fishery: So far evidently none, but Jones (1969:747), Suseelan (1976) and Kurian & Sebastian (1976:94) listed this species with a number of others as potentially interesting as a subject for commercial fishery in India, especially off Kerala.

*Plesionika acanthonotus* (S. I. Smith, 1882)

PANDL Plesion 3

*Pandalus acanthonotus* S.I. Smith, 1882, Bull.Mus.Comp.Zool.Harv.Coll., 10:61

Synonymy: *Pandalus parfaiti* A. Milne Edwards, 1883; *Pandalus geniculatus* A. Milne Edwards, 1883; *Nothocaris geniculatus* - Bate, 1888; *Plesionika parfaiti* - De Man, 1920; *Plesionika geniculata* - De Man, 1920.

FAO Names: Lesser striped shrimp (En), Crevette naine rayée (Fr), Camarón rayado menor (Sp).

Literature: Zariquiey Alvarez, 1968:102, Figs. 39c,43,44a,b; Crosnier & Forest, 1973:203, Figs. 64d,65a.

Distribution: Eastern Atlantic: Bay of Biscay to S.W. Africa; Western Mediterranean. Western Atlantic: South Carolina, U.S.A. to Brazil.

Habitat: Depth 190 to 1 350 m. Bottom mud. Marine.

Size: Maximum total length 84 mm.

Interest to Fishery: Minor. Zariquiey Alvarez (1946:66) indicated that the species is caught by trawlers off the Catalonian coast of Spain. The specimens form a minor portion of the catch and

are usually either discarded or sold mixed with other shrimps. Massuti (1968:306) also reported the species from the Balears as "con menor interés comercial o nulo".

*Plesionika alcocki* (Anderson, 1896)

PANDL Plesion 4

*Pandalus alcocki* Anderson, 1896, J.Asiat.Soc.Bengal, 65(2):92

FAO Names: Gondwana striped shrimp (En), Crevette gondwana (Fr), Camarón gondwana.

Literature: Alcock, 1901:97.

Distribution: Indo-West Pacific: Western Indian Ocean from East Africa and the Gulf of Aden to the Bay of Bengal.

Habitat: Depth 500 to 1 170 m. Marine.

Size: Maximum carapace length 20.5 mm (♂), 22 mm (♀).

Interest to Fishery: This species was considered by Crosnier & Jouannic (1973:13) "éventuellement commercialisable" on the continental slope of Madagascar.

*Plesionika antigai* Zariquiey Alvarez, 1955

PANDL Plesion 5

*Plesionika antigai* Zariquiey Alvarez, 1955, Publ.Inst.Biol.Apl., Barc., 19:111

FAO Names: Catalonian striped shrimp (En), Crevette catalane (Fr), Camarón catalán (Sp).

Literature: Zariquiey Alvarez, 1968:100, Fig. 37.

Distribution: Eastern Atlantic: Western Mediterranean; probably also West Africa.

Habitat: Depth 168 to 400 m. Marine.

Size: Maximum carapace length (without rostrum) 17.5 mm.

Interest to Fishery: Minor if at all. Caught by trawlers off the Catalonian coast of Spain and brought to the fishmarkets, where it is sold as an admixture with other prawns (Zariquiey Alvarez, 1955).

*Plesionika edwardsii* (Brandt, 1851)

PANDL Plesion 2

*Pandalus (Pontophilus) edwardsii* Brandt, 1851, In Middendorff, Reise N. und O. Sibiriens, 2(1):121

Synonymy: *Pandalus guerinii* Risso, 1844 (nomen nudum).

FAO Names: Striped soldier shrimp (En), Crevette édouard (Fr), Camarón soldado rayado (Sp).

Local Names: Carabinero (Spain).

Literature: Zariquiey Alvarez, 1968:109, Fig. 45; Crosnier & Forest, 1973:202, Figs. 636,64b.

Distribution: Eastern Atlantic: Mediterranean; West Africa as far south as Sierra Leone. Western Atlantic: S. Carolina, U.S.A. to Gulf of Mexico.

Habitat: Depth 180 to 680 m. Bottom mud. Marine.

Size: Maximum total length 166 mm.

Interest to Fishery: Zariquiey Alvarez (1946:68) reported the species as being caught by trawlers off the Spanish Mediterranean coast. The shrimps are brought here to the markets and sold usually as an admixture with other shrimps. Massuti (1968:305,307) reported this species as one of the three species of shrimp that are of economic interest in the region of the Balears, Spain, while also on the Atlantic coast of Spain it seems to be of some importance. Brian (1941:32) mentioned the species as being sold on the fishmarkets in Genoa, Italy, be it in limited numbers and often mixed in with *Parapenaeus longirostris*. In Algeria the same is true: "On le rencontre couramment sur les marchés algériens, melange à la Crevette rose pâle: *Parapenaeus longirostris* Lucas" (Dieuzeide, 1931: 128); this was later confirmed by the same author (Dieuzeide, 1952:38), who stated that in Algerian waters the present species is the only Pandalid which has "une importance économique". Heldt & Heldt (1954:11) reported the same for Tunis: "Il s'en trouve quelquefois au marché de Tunis, mélangé à la crevette rose (*Parapenaeus*)".

*Plesionika ensis* (A. Milne Edwards, 1881)

PANDL Plesion 6

*Acanthephyra ensis* A. Milne Edwards, 1881, Ann.Sci.Nat.Paris, (Zool.), (6)11(4):14

Synonymy: *Pandalus ensis* -A. Milne Edwards, 1883; *Plesionika uniproducta* Bate, 1888.

FAO Names: Striped gladiator shrimp (En), Crevette gladiateur rayée (Fr), Camarón gladiador rayado (Sp).

Literature: Holthuis, 1951:55, Fig. 10; Suseelan & Mohamed, 1969:88, Figs. 1-4.

Distribution: Circumtropic: Western Atlantic: Florida (U.S.A.); West Indies; Brazil. Eastern Atlantic: Morocco to Angola. Indo-West Pacific: Arabian Sea; Bay of Bengal; Fiji; Hawaiian Archipelago.

Habitat: Depth 100 to 1 250 m. Bottom mud. Marine.

Size: Maximum total length 128 mm.

Interest to Fishery: So far the species is not fished for, but Suseelan & Mohamed (1969), Suseelan (1976) and Kurian & Sebastian (1976:94) found it to be of potential commercial value off the west coast of India (Kerala).

*Plesionika gigliolii* (Senna, 1903)

PANDL Plesion 7

*Pandalus gigliolii* Senna, 1903, Boll.Soc.Entomol.Ital., 34:315

Synonymy: *Pandailus subtilirostris* Riggio, 1905; *Pandalus (Nothocaris) ocellus subtilirostris*-Riggio, 1905.

FAO Names: Italian deepsea shrimp (En), Crevette profonde italienne (Fr), Camarón italiano de fondo (Sp).

Literature: Zariquiey Alvarez, 1968:106, Fig. 44c.

Distribution: Eastern Atlantic: Western Mediterranean; West Africa south to Sierra Leone.

Habitat: Depth 118 to 800 m. Bottom mud. Marine.

Size: Maximum total length 62 mm.



Interest to Fishery: Practically nil. The species is rarely caught by trawlers off the Catalonian coast of Spain (Zariquiey Alvarez, 1946:66), and comes on the fishmarkets as an admixture with other prawns.

*Plesionika heterocarpus* (Costa, 1871)

PANDL Plesion 8

*Pandulus heterocarpus* Costa, 1871, Ann.Mus.Zool.Univ.Napoli, 6:89

Synonymy: *Pandalus sagittarius* A. Milne Edwards, 1883; *Pandalus longicarpus* A. Milne Edwards, 1883.

FAO Names: Arrow shrimp (En), Crevette flèche (Fr), Camarón flecha (Sp).

Literature: Crosnier & Forest, 1973:199, Figs. 63a,64a.

Distribution: Eastern Atlantic: Mediterranean; Atlantic coast from Portugal to Angola.

Habitat: Depth 35 to 850 m. Bottom mud. Marine.

Size: Maximum total length 88 mm (♂), 106 mm (♀).

Interest to Fishery: The species is taken by trawlers off the Catalonian coast of Spain (Zariquiey Alvarez, 1946:66; Zariquiey Alvarez, 1955:105,111), sometimes in large quantities. These specimens however are of minor commercial importance and are usually sold as admixtures with other species of shrimp. Brian (1941:34, Fig. 9) listed the species among the edible Crustacea of the Genoa (Italy) fishmarket where it usually is found in small numbers mixed with other shrimps. Heldt & Heldt (1954:11,12) enumerated the species among the edible Crustacea of Tunisian waters, and indicated that in certain places, although it is as abundant as *Parapenaeus*, it is considered trash and not sold separately on the market.

*Plesionika martia* (A. Milne Edwards, 1883)

PANDL Plesion 1

*Pandalus martius* A. Milne Edwards-, 1883, Recueil Figures Crustacés nouveaux ou peu connus, Pl. 21, Fig. 2

Synonymy: *Plesionika semilaevis* Bate, 1888; *Plesionika (Pandalus) sicherii* Riggio, 1900; *Plesionika cottei* Kotte, 1902.

FAO Names: Golden shrimp (En), Crevette dorée (Fr), Camarón de oro (Sp).

Local Names: Golden prawn (New Zealand).

Literature: Kemp, 1910:93, Pl. 12, Figs. 1-4; Chace, 1940:190, Fig. 57; Crosnier & Forest, 1973:212, Figs. 63d,64e,66.

Distribution: Circumtropic: Western Atlantic: Bermuda and South Carolina (U.S.A.) to Gulf of Mexico and Brazil. Eastern Atlantic: Ireland south to S. Africa; Mediterranean. Indo-West Pacific: Gulf of Aden and S.E. Africa to Japan, Hawaii, Australia and Kermadec Islands.

Habitat: Depth 180 to 2 100 m. Bottom mud. Marine.

Size: Maximum total length 169 mm.

Interest to Fishery: Along the Catalonian coast of Spain the species is occasionally caught by trawlers (Zariquiey Alvarez, 1946:66), and so reaches the fishmarkets, where it may be sold as an admixture with other prawns, but its value is negligible. Brian (1941:28,31) remarked that at the fishmarket, of Genoa, Italy, this species is seen rather frequently, but in limited numbers, usually mixed in with *Aristeus* and *Aristaeomorpha*. Crosnier & de Bondy (1967:41) mentioned this species as