

Sepiella inermis (Van Hasselt, 1835) (in Férussac and d'Orbigny, 1834–1848) | Fig. 204; Plate VI, 37

Sepia inermis Van Hasselt, 1835 (in Férussac and d'Orbigny 1834–1848). Histoire naturelle générale et particulière Céphalopodes Acétabuliferes vivants et fossiles, pl. 6bis [type locality: Indian Ocean].

Frequent Synonyms: Sepia (Sepiella) microcheirus Gray, 1849; Sepia affinis Eydoux and Souleyet, 1852; Sepiella maindroni de Rochebrune, 1884.

Misidentifications: None.

**FAO Names:** En – Spineless cuttlefish; Fr – Sépia inerme; Sp – Sepia inerme.

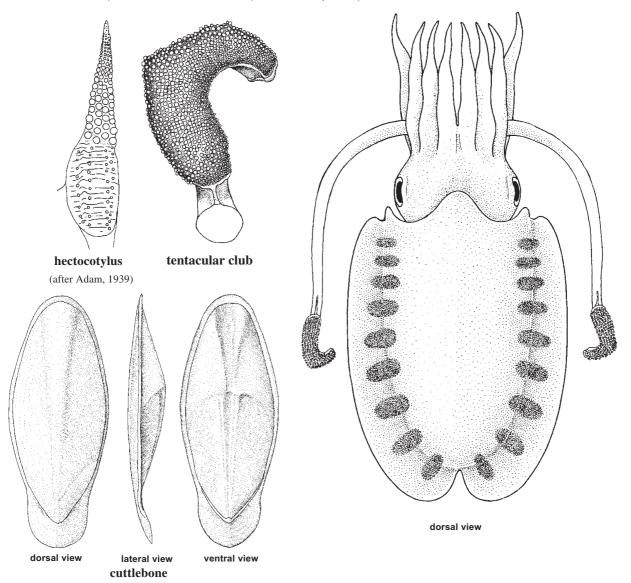


Fig. 204 Sepiella inermis

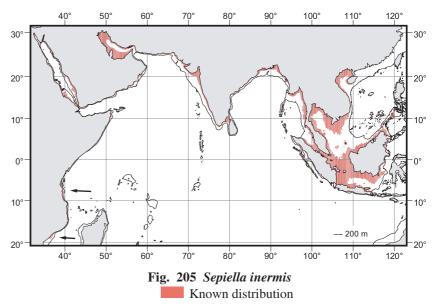
Diagnostic Features: Mantle oblong. Posterior gland and gland pore pigmented reddish. Protective membranes on arms in both sexes wide, well-developed. Arm suckers tetraserial. Hectocotylus present on left ventral arm: 10 rows of reduced suckers proximally. Club with 12 to 24 suckers in transverse rows (very variable depending upon geographic area). Swimming keel of club slightly shorter than carpus; dorsal and ventral protective membranes not joined at base of club; extend proximal to carpus along stalk as low ridges. Cuttlebone outline oval, broad; cuttlebone width 33 to 43% cuttlebone length; strongly convex in lateral view; granulose dorsally; dorsal median rib distinct. Spine absent. Striated zone and last loculus convex; sulcus extends entire length of cuttlebone. Inner cone limbs are uniform width, narrow, inner cone U-shape posteriorly, thickened, raised in the centre as a rounded knob; outer cone chitinous, spatulate, expanded. Colour: Greyish brown. Dorsal mantle has more than 7 reddish patches adjacent to base of fins.

Size: Maximum mantle length about 125 mm.

(after Adam, 1939)

Geographical Distribution: Indian Ocean: mouth of Zambezi River, southern Red Sea, Gulf of Aden, Persian Gulf, to Andaman Sea and southern South China Sea, Gulf of Tonkin and eastern Indonesia. The northern and eastern extent of the distribution of this species is not known (Fig. 205).

Habitat and Biology: Sepiella inermis is a demersal, shallow water species found to 40 m depth. Length at maturity varies with stocks: on the east coast, off Waltair, it is about 53 mm for males and 52 mm for females and off Madras, about 56 mm and 60 mm; off Cochin, however, on the west coast, animals mature at larger sizes: 81 mm and 83 mm, for males and females, respectively. Females grow larger than males and growth is allometric in both sexes. Spawning extends almost throughout the year, with seasonal peaks correlating with



environmental conditions. Off Kakinada and Waltair (northeast India) spawning occurs from June to September and from November to December; off Madras, in September, December and March; off Portonovo from March to October; off Cochin (southwest coast) in April and from September through October. The majority of spawning cuttlefishes are aged 9 to 12 months on the east coast and about 18 months on the west coast. Capsules containing several eggs are attached to various substrates in very shallow waters. Growth varies according to environmental conditions. Hatchlings may attain 29 to 35 mm mantle length after 6 months. At the end of one year, they can grow to sizes ranging from 53 mm (Kakinada) to 61 mm (Cochin), while after 18 months they reach 74 mm (Waltair and Kakinada) to 82 mm (Madras). Longevity on the east coast is estimated at 24 months, while on the west coast it is believed to be over 24 months. The diet of spineless cuttlefish consists primarily of small demersal fishes and crustaceans; cephalopods are a minor food component. This species has been reared successfully in aquaculture experiments conducted in Thailand since 1978 with the objective to develop commercial mass culture techniques. Three generations have been reared in culture, fed on live mysids and postlarval penaeid shrimp. The eggs are laid singly, are black and round, and have an incubation period that averages 12.6 days at 28°C. In culture, hatchlings were planktonic for 5 days before changing to a benthic stage. Females mature at 60 days, spawn at 87 days and produce about 500 eggs. Both sexes die after spawning, at an average age of 116 days. Maximum observed life span was 149 days, with size of around 80 mm and weight around 65 grams. Size at first maturity was 50 mm for males and 31 mm for females in experimental cultures in India.

Interest to Fisheries: The species is an object of several small fisheries and is caught in quantities in the Arabian Sea near southern India and in the waters of Indo-China. Maximum lengths in the Indian trawl catches are around 110 mm on the east coast and over 120 mm on the west coast off Cochin. *Sepiella inermis* is important to the commercial cuttlefish fishery in Thailand, where it is highly abundant in the Gulf and in the Andaman Sea. In the Gulf of Thailand, most animals caught commercially range between 20 and 80 mm mantle length, with the maximum size recorded at 105 mm mantle length. Cuttlefishes in this region usually are caught using otter trawl or pair trawl, but squid light lures, traps, and to a lesser extent, push nets, purse seines and hook-and-line also are used, with bottom otter and pair trawls used offshore, and push nets and lift nets used in inshore and coastal waters. *Sepiella inermis* is one of the main commercial species in India and Sri Lanka. In the Andaman Sea it is collected using push nets. Off East Java, in Probolinggo waters, this species has been collected using bagan (lift net) in inshore areas. In shallow Saurashtra waters off Veraval (Gujarat, India), a continuous decline in the annual landings and average annual stock observed from trawl fishery operations (1979–1983) was attributed to high fishing pressure. This led to proposals to develop suitable regulatory measures for this fishery.

**Remarks:** Sepiella inermis is possibly a species complex; this should be examined given its fisheries significance. It is very similar to S. cyanea Robson, 1924b.

Literature: Adam and Rees (1966), Silas et al. (1982), Unnithan (1982), Silas et al. (1986), Sudjoko (1987), Kasim (1988), Appannasastry (1989), Filippova et al. (1995), Khaliluddin (1995), Chantawong and Suksawat (1997), Nabhitabhata (1997).

Sepiella japonica Sasaki, 1929

Fig. 206

Sepiella japonica Sasaki, 1929, Journal of the College of Agriculture, Hokkaido Imperial University, 20 (suppl.): 219 [type locality: Japan Sea, Toyama Bay].

Frequent Synonyms: None.

Misidentifications: None.

FAO Names: En – Japanese spineless cuttlefish; Fr – Sépia inerme japonaise; Sp – Sepia inerme japonesa.

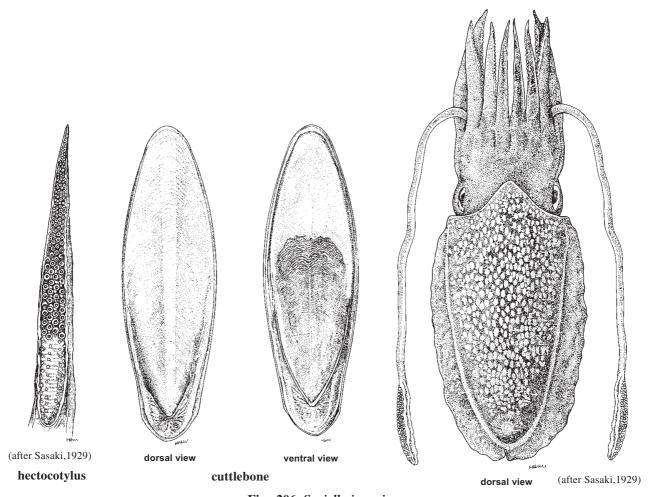


Fig. 206 Sepiella japonica

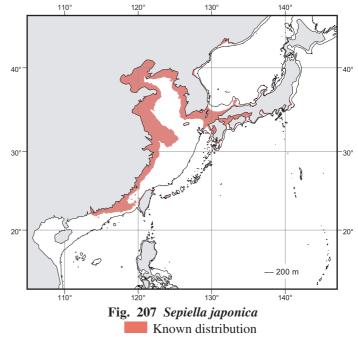
Diagnostic Features: Mantle oval; dorsal anterior margin triangular, obtuse. Posterior gland and gland pore present between, and just below, the posterior fin lobes. Posterior half of ventral mantle sometimes stained brown with secretion from pore. Fins widen gradually posteriorly. Arms relatively short. Arm suckers tetraserial. Hectocotylus present on left ventral arm: 12 rows of reduced suckers proximally; reduced suckers much smaller than normal arm suckers, ventral 2 rows of suckers close together, dorsal 2 rows separated. Suckers of hectocotylus in 2 dorsal and 2 ventral series are displaced laterally, with gap between them. Club with 16 to 32 suckers in transverse rows (usually >20); all club suckers of similar, minute, size. Cuttlebone outline broad, oval; cuttlebone width 30 to 35% cuttlebone length; bone strongly convex in lateral view; dorsal surface evenly convex; granulose; dorsal median rib and lateral ribs indistinct. Spine absent. Striated zone and last loculus convex; sulcus shallow, narrow, extends entire length of cuttlebone. Anterior striae are inverted U-shape striated zone with faint, radiating grooves, the median groove is more pronounced than the others. Inner cone limbs are uniform width, narrow, U-shape posteriorly (rudimentary); inner cone with rounded posterior knob; outer cone chitinous, spatulate, expanded. Colour: Greyish brown. Dorsal mantle has white blotches or spots. Fins with pale reflective line along base. No spots or wine-coloured patches at base of fins. Ventral mantle pale but usually stained pale red.

Size: Up to 180 mm mantle length, 600 g total weight.

**Geographical Distribution:** Northwestern Pacific: Russian Federation, Possiet Bay in southern Primorye; Japan, from the Kanto region of Honshu, to South Korea, East China Sea, South China Sea, Taiwan Province of China, Kwang-chow (Canton), Hong Kong (Fig. 207).

Habitat and Biology: Depth to 50 m. In the Hong Kong area, the species is present in low numbers to the 50 m contour, but peak occurrences, when huge numbers of this species occur, have been reported. It spawns in May off Japan, and February to March around Hong Kong, varying with temperature. It is believed that in years characterized by intensification of warm currents this species migrates to areas in the northern Sea of Japan (up to Vostok Bay and Peter the Great Bay, Russian Federation).

Interest to Fisheries: Sepiella japonica is important in the fisheries of Japan, South Korea, Taiwan Province of China and China, caught in large numbers in bottom trawls. In Japan, most of the catch is dried and marketed as 'surume'. It is the dominant species of cuttlefishes caught around the Chekiang and Kiangsu provinces of China, with over 10 000 tonnes caught annually, and is a component of the fishery in the waters around Jiaozhou Bay. Around Hong Kong it is normally not important for the fishery, except when infrequent population peaks occur.



Local Names: CHINA: Ngor Huet Mak, Mo Jam Woo Chak; JAPAN: Harinashi-kouika, Shirikusari, Shiriyakeika.

**Remarks:** According to Khromov (1996), Duc's (1978, 1993, 1997) records from Viet Nam possibly refer to *S. inermis* Van Hasselt, 1835. The species has been reared successfully in aquaculture experiments under the name *Sepiella maindroni* (Choe, 1966).

Literature: Adam and Rees (1966), Choe (1966), Ueda (1985), Okutani et al. (1987), Natsukari and Tashiro (1991), Morozov (1997), Zhang et al. (1997).

Sepiella ornata (Rang, 1837)

Fig. 208

Sepia ornata Rang, 1837, Magasin de Zoologie, 7(Cl.V.): 76 [type locality: Gulf of Guinea].

Frequent Synonyms: None.

Misidentifications: None.

FAO Names: En – Ornate cuttlefish; Fr – Sépia ornée; Sp – Sepia ornada.

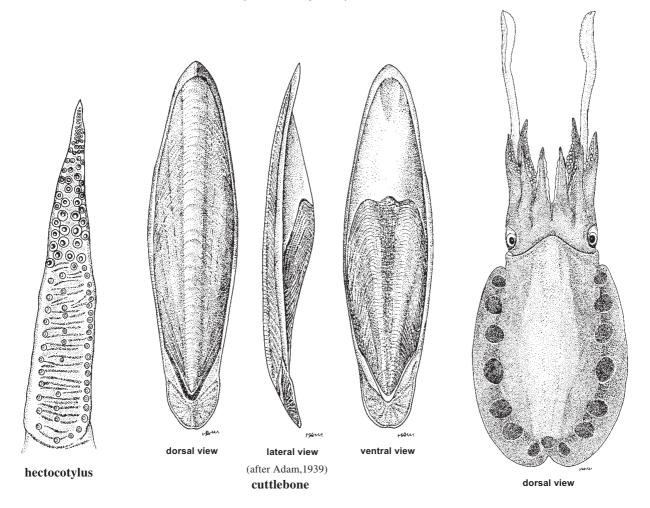


Fig. 208 Sepiella ornata

Diagnostic Features: Mantle oblong. Arm suckers tetraserial. Hectocotylus present on left ventral arm: 10 rows of greatly reduced suckers proximally; suckers equal in size across rows; oral surface of modified region wide, swollen, fleshy, with transversely grooved ridges. Suckers of hectocotylus in 2 dorsal and 2 ventral series are displaced laterally, with gap between them. Club with 10 to 14 suckers in transverse rows. Cuttlebone much shorter than mantle, located in anterior 2/3 to 3/4 of mantle; outline oblong; cuttlebone width 24 to 27% cuttlebone length in males and 27 to 30% cuttlebone length in females; bone strongly convex in lateral view; acuminate, acute, anteriorly; bluntly rounded posteriorly. Spine absent. Sulcus shallow, narrow, extends along striated zone only, flanked by rounded ribs; limbs of inner cone are short, extend anteriorly to junction of striated zone and posterior termination of last loculus. Inner cone limbs are uniform width, narrow V-shape posteriorly; outer cone chitinous, spatulate, expanded, recurved ventrally. Colour: Fin bases with row of large wine coloured spots.

Size: Up to 100 mm mantle length.

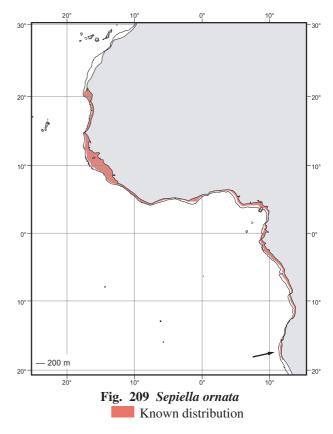
**Geographical Distribution:** Eastern Atlantic: off west Africa from Cape Blanco to Cape Frio (Fig. 209).

**Habitat and Biology:** Depth range from 20 to 150 m, but most abundant in waters deeper than 50 m.

**Interest to Fisheries:** It is taken mostly as bycatch in bottom trawls mixed with *Sepia* species, the highest yields coming from waters deeper than 50 m.

Local Names: JAPAN: Hana-ika.

Literature: Okutani (1980), Roper and Sweeney (1981).



Sepiella weberi Adam, 1939

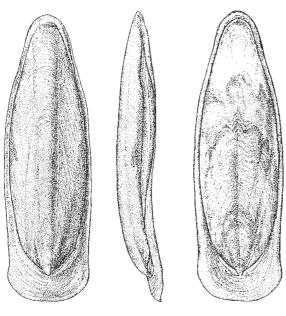
Fig. 210

Sepiella weberi Adam, 1939a, Part III. Revision du Genre Sepiella (Gray) Steenstrup, 1880. Siboga-Expeditie, 556: 98 [type locality: Timor, 8°35'S 126°00'E, and Soemba, 10°S 119°56'E, eastern Indonesia].

Frequent Synonyms: None.

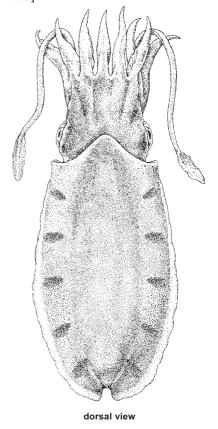
Misidentifications: None.

**FAO Names:** En – Web's cuttlefish; Fr – Sépia de Web; Sp – Sepia de Web.



dorsal view lateral view ventral view (illustrations: K. Hollis/ABRS) cuttlebone Fig. 21

Fig. 210 Sepiella weberi



Diagnostic Features: Male and female arms subequal in length. Arm suckers tetraserial; 2 median series of suckers in males are larger than dorsal and ventral marginal series, and larger than female arm suckers. Hectocotylus present on left ventral arm: 11 or 12 rows of reduced suckers proximally; suckers in 2 dorsal series smaller than those in 2 ventral series; reduced suckers much smaller than normal arm suckers; oral surface of modified region wide, swollen, fleshy, with transversely grooved ridges. Suckers of hectocotylus in 2 dorsal and 2 ventral series are displaced laterally, with gap between, 2 ventral series close together, rows alternate. Club crescent-shaped, sucker-bearing surface convex, with 7 to 10 suckers in transverse rows. Dorsal and ventral protective membranes not joined at base of club. Swimming keel and club protective membranes are equal in length to sucker-bearing surface of club. Gills with 27 or 28 lamellae per demibranch. Buccal membrane without suckers. Cuttlebone outline oblong; cuttlebone width 21 to 31% cuttlebone length in males, 30 to 33% in females; bone strongly recurved ventrally; dorsal median rib indistinct; rib broadens anteriorly; lateral ribs absent. Striated zone and last loculus convex; sulcus shallow, narrow, flanked by rounded ribs, extends entire length of cuttlebone. Anterior striae are inverted U-shape, or wavy; limbs of the inner cone are short, thickened slightly; shiny; outer cone chitinous, spatulate, expanded; without indentation on posterolateral margin. Colour: Purplish brown. Dorsal mantle pale, peppered with scattered purple-black chromatophores. Fins with 5 or 6 oval orange-pink spots at base in both sexes, spots slightly larger in males.

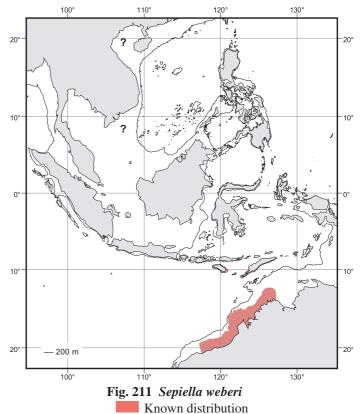
Size: Males up to 60 mm mantle length; females up to 70 mm mantle length.

**Geographical Distribution:** Indo-Pacific: Indonesia (Timor–Soemba), 08°35'S 126°00'E to 10°S 119°56'E, to northwestern Australia, 12°39'S 127°03'E to 19°35'S 117°14'E. South China Sea: Viet Nam (unconfirmed records) (Fig. 211).

**Habitat and Biology:** Depth range from shallow waters to 88 m (Australia). In contrast all other *Sepiella* species, the ventral side of the cuttlebone is not strongly convex medially in *S. weberi*.

**Interest to Fisheries:** Specific reports are not available, but the species may occur in multispecies trawl catches due to its size and distribution.

Literature: Lu (1998a), Reid and Lu (1998).



# SPECIES OF NO CURRENT INTEREST TO FISHERIES, OR RARE SPECIES FOR WHICH ONLY FEW RECORDS EXIST TO DATE

### Sepia acuminata Smith, 1916

Sepia acuminata Smith, 1916, Proceedings of the Malacological Society of London, 12(1): 21 [type locality: South Africa: Port Elizabeth and Natal, Tongaat Beach].

**Size:** Males up to 100 mm mantle length; females up to 120 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: southeast Africa from South Africa, Port Elizabeth–Somalia, 01°30'N–30°S, and Madagascar. Depth range from 44 to 369 m.

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova et al. (1995).

### Sepia adami Roeleveld, 1972

Sepia adami Roeleveld, 1972, Annals of the South African Museum, 59(10): 224 [type locality: South Africa: S 79°E off Cape Natal].

Size: Females up to 59 mm mantle length.

Geographical Distribution: Southwestern Indian Ocean: known only from the type locality. Depth to 99 m.

Literature: Roeleveld (1972).

#### Sepia angulata Roeleveld, 1972

Sepia angulata Roeleveld, 1972, Annals of the South African Museum, 59(10): 242 [type locality: Africa: South Africa, Bloubergstrand, 33°48'S 18°27'E].

Size: Up to 75 mm cuttlebone length.

**Geographical Distribution:** Southeastern Atlantic: Bloubergstrand, 33°48'S 18°27'E, to Still Bay, 34°23'S 21°25'E. Known only from cuttlebones.

Literature: Roeleveld (1972).

#### Sepia appellofi Wülker, 1910

Sepia appellofi Wülker, 1910, Abhandlungen der mathematische-physikalische Klasse der Köeniglich Bayerischen Akademie der Wissenschaften, 3(Suppl. 1): 14 [type locality: Japan: Misaki].

Size: Up to 90 mm mantle length.

Geographical Distribution: Northwestern Pacific: Japan, Kyushu to south Honshu, Tsushima Strait. Depth to 350 m.

Literature: Adam and Rees (1966).

### Sepia aureomaculata Okutani and Horikawa, 1987

Sepia aureomaculata Okutani and Horikawa, 1987. In: T. Okutani, M. Tagawa and H. Horikawa, Cephalopods from continental shelf and slope around Japan: 62 [type locality: Japan: Tosa Bay].

Size: Up to 160 mm mantle length.

**Geographical Distribution:** Northwestern Pacific: Japan, Kii Channel, Tosa Bay, Hyuga-Nada and East China Sea. Depth range from 190 to 350 m.

Literature: Okutani et al. (1987).

#### Sepia bartletti (Iredale, 1954)

Blandosepia bartletti Iredale, 1954, Australian Zoologist, 12(1): 67 [type locality: Misima and the Conflict Group, Louisiade Archipelago (southeast of Papua New Guinea)].

Size: Up to 74 mm mantle length.

Geographical Distribution: Western Pacific: known only from the type locality.

**Remarks:** Depth range unknown. Status uncertain, known only from type and six other specimens (all cuttlebones) reported by Iredale, 1954. Possible synonym of *Sepia bandensis* Adam, 1939b.

Literature: Iredale (1954).

#### Sepia bathyalis Khromov, Nikitina and Nesis, 1991

Sepia bathyalis Khromov, Nikitina and Nesis, 1991, Zoologicheskii Zhurnal, 70(6): 13 [type locality: Madagascar, 22°19' to 22°23'S 43°06'E].

Size: Up to 80 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: northwestern and southwestern Madagascar. Depth range from 300 to 500 m.

Literature: Khromov et al. (1991).

#### Sepia baxteri (Iredale, 1940)

Blandosepia baxteri Iredale, 1940, Australian Zoologist, 9(4): 442 [type locality: Lord Howe Island, 31°33'S 159°05'E].

Size: Up to 74 mm mantle length.

**Geographical Distribution:** Southwestern Pacific: Lord Howe Island, 31°33'S 159°05'E. Known only from type cuttlebones. Depth range unknown. Possible synonym of *Sepia bandensis* Adam, 1939b.

Literature: Adam and Rees (1966).

### Sepia bidhaia Reid, 2000

Sepia bidhaia Reid, 2000, Invertebrate Taxonomy, 14: 4 [type locality: Australia: Queensland, 17°55.8'S 146°58.2'E].

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Size: Males up to 37 mm mantle length; females up to 57 mm mantle length.

**Geographical Distribution:** Southwestern Pacific: Australia, Queensland, off the Great Barrier Reef, 17°20'S 146°41.5'E to 22°07'S 153°19'E. Depth range from 200 to 304 m.

Literature: Reid (2000).

### Sepia burnupi Hoyle, 1904

Sepia burnupi Hoyle, 1904, Journal of Conchology, 11(1): 27 [type locality: South Africa: Natal, Umkomaas].

Size: Up to 90 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: southeast Africa, from Port Elizabeth to southern Mozambique. Saya-de-Malha Bank. Depth range from 40 to 240 m. Rare species.

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova et al. (1995).

#### Sepia carinata Sasaki, 1920

Sepia carinata Sasaki, 1920, Proceedings of the United States National Museum, 57(2310): 192 [type locality: Japan: Sagami Sea, 35°04'50"N 139°38'18"E].

Size: Up to 60 mm mantle length.

**Geographical Distribution:** Western Pacific: southern Japan, Sagami Bay, South China Sea, Viet Nam. Depth range lower sublittoral, to 128 m.

**Remarks:** This is likely to be a very rare species as it has not been recorded from Japanese waters since its original description.

Literature: Sasaki (1920).

#### Sepia chirotrema Berry, 1918

Sepia chirotrema Berry, 1918. Biological Results Fishing Experiments 'Endeavour' 1909–1914, 4(5): 268 [type locality: South Australia, Investigator Strait area, 35°25'S 137°22'E, south of Kangaroo Island, 35°50'S 137°15'E].

Size: Up to approximately 200 mm mantle length.

**Geographical Distribution:** Southern Indo-Pacific: Southern Australia from Investigator Strait, 35°25'S 137°22'E, to Western Australia, Dirk Hartog Island, 25°45'S 113°03'E. Depth range from 120 to 210 m.

Literature: Lu (1998a).

# Sepia confusa Smith, 1916

Sepia confusa Smith, 1916, Proceedings of the Malacological Society of London, 12(1): 24 [type locality: South Africa: Natal, Port Elizabeth, Tongaat Beach].

Size: Up to 150 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: southeastern Africa from Port Elizabeth to south Mozambique, Zanzibar and Pemba, 5° to 30°S. Saya-de-Malha Bank. Madagascar. Record from the Arabian Sea (Zuev, 1971) erroneous, while record from Saya-de-Malha Bank (Nesis, 1993) has not been confirmed by more recent expeditions. Depth range from 53 to 352 m.

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova et al. (1995).

### Sepia cottoni Adam, 1979

Sepia cottoni Adam, 1979, Records of the Western Australian Museum, 7(2): 193 [type locality: Australia: Western Australia, west of Lancelin, 31°54'S 114°55'E].

Size: Up to 55 mm mantle length.

**Geographical Distribution:** Southeastern Indian Ocean: Australia, Western Australia, northwest of Broome, 17°31.5'S 121°27'E, to Rottnest Island, Armstrong Point, 32°S 115°30'E. Depth range from 83 to 183 m.

Literature: Reid (2000).

### Sepia dollfusi Adam, 1941

Sepia dollfusi Adam, 1941b, Bulletin du Musée royal d'Histoire naturelle de Belgique, 17(62): 12 [type locality: southern Red Sea: Périm Island].

Size: Up to 110 mm mantle length.

**Geographical Distribution:** Red Sea and southern part of Suez Canal. Depth range unknown.

Literature: Adam and Rees (1966), Gabr (1999).

#### Sepia dubia Adam and Rees, 1966

Sepia dubia Adam and Rees, 1966, John Murray Expedition 1933–34, Scientific Reports, 11(1): 119 [type locality: Africa: South Africa, False Bay, 34°11'S 18°27'E].

Size: Up to 17 mm mantle length.

Geographical Distribution: Southeastern Atlantic: known only from the type locality. Depth 25 m.

Literature: Roeleveld (1972).

Cephalopods of the World

# Sepia elongata d'Orbigny, 1839–1842 (in Férussac and d'Orbigny 1834–1848)

Sepia elongata d'Orbigny, 1839–1842 (in Férussac and d'Orbigny), Histoire naturelle générale et particulière Céphalopodes Acétabuliferes vivants et fossiles, pl. 24 [type locality: Red Sea, near Cossier].

Size: Up to 97 mm mantle length.

Geographical Distribution: Northwestern Indian Ocean: Red Sea to Somalia. Depth range unknown.

Literature: Adam and Rees (1966).

### Sepia erostrata Sasaki, 1929

Sepia erostrata Sasaki, 1929, Journal of the College of Agriculture, Hokkaido Imperial University, 20(supplement): 183 [type locality: Japan: Manazuru, Kanagawa Prefecture].

Size: Up to 90 mm mantle length.

Geographical Distribution: Northwestern Pacific: off western mainland Japan, Sagami Bay to Kii Peninsula. Subtidal, inshore.

Literature: Okutani et al. (1987).

#### Sepia faurei Roeleveld, 1972

Sepia faurei Roeleveld, 1972, Annals of the South African Museum, 59(10): 251 [type locality: South Africa, 88 km southeast of Cape Seal, 35°00'S 23°07'E].

Size: Up to 21 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: South Africa, S 14°E(?) of Cape Seal 88 km, 35°00'S 23°07'E (to the east of the Cape of Good Hope). Depth to 168 m.

Literature: Roeleveld (1972).

#### Sepia foliopeza Okutani and Tagawa, 1987

Sepia foliopeza Okutani and Tagawa, 1987, In: T. Okutani, M. Tagawa and H. Horikawa, Cephalopods from continental shelf and slope around Japan: 66 [type locality: East China Sea].

Size: Up to 110 mm mantle length.

Geographical Distribution: Western Pacific: East China Sea and Taiwan Province of China. Depth range unknown.

Literature: Okutani et al. (1987), Lu (1998b).

### Sepia gibba Ehrenberg, 1831

Sepia gibba Ehrenberg, 1831, In: C.G. Ehrenberg, 1828–1845. Symbolae Physicae, seu Icones et descriptiones Corporum Nauralium novorum aut minus cognitorum, P.C. Hemprich et C.G. Ehrenberg, Pars Zoologica: 5 [type locality: Red Sea].

Size: Up to 100 mm mantle length.

Geographical Distribution: Red Sea. Depth range unknown, at least as shallow as 1 m.

Literature: Adam and Rees (1966).

### Sepia hieronis (Robson, 1924)

Rhombosepion hieronis Robson, 1924a, Proceedings of the Zoological Society of London, 1924(2): 645 [type locality: South Africa, Cape Town, 32°32' to 33°03'S 17°29' to 17°42'E].

Size: Up to 70 mm mantle length.

**Geographical Distribution:** Southeastern Atlantic and southwestern Indian Ocean: west Africa, southern Namibia, from approximately 27°S to Port Alfred, South Africa, and east Africa from 17°S to Kenya and Mozambique. Saya-de-Malha Bank. Depth range from 43 to 500 m (most abundant at 110 to 250 m).

Literature: Adam and Rees (1966), Augustyn et al. (1995), Filippova et al. (1995).

### Sepia incerta Smith, 1916

Sepia incerta Smith, 1916, Proceedings of the Malacological Society, London, 12: 23 [type locality: South Africa: Tongaat Beach, Natal; Port Elizabeth, Cape Province].

Size: Up to 150 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: south and east Africa, from Port Elizabeth to Mozambique (north to 18°S). Saya-de-Malha Bank. Depth range from 90 to 345 m.

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova et al. (1995).

### Sepia insignis Smith, 1916

Sepia insignis Smith, 1916, Proceedings of the Malacological Society, London, 12: 25 [type locality: Africa: South Africa, Natal, Tongaat, on beach, 29°35'S 31°07'E (cuttlebones only)].

Size: Up to 60 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: Africa, south Africa, from Cape of Good Hope to Natal. Depth to 42 m.

Literature: Adam and Rees (1966), Roeleveld (1972).

# Sepia irvingi Meyer, 1909

Sepia irvingi Meyer, 1909, Die Fauna Südwest-Australiens, 2(19): 333 [type locality: Western Australia, Cockburn Sound, Garden Island, 32°11'S 115°43'E, Port Royal (King George Sound), 35°03'S 117°58'E, and Warnbro Sound, 32°20'S 115°43'E].

Size: Up to 100 mm mantle length.

**Geographical Distribution:** Southeastern Indian Ocean: Western Australia, from Cockburn Sound to North West Shelf, 18°49'S 118°29'E. Depth range from 130 to 170 m.

Literature: Lu (1998a).

### Sepia ivanovi Khromov, 1982

Sepia ivanovi Khromov, 1982, Zoologichesky Zhurnal, 61(1): 137 [type locality: southeast Africa: Kenya, Mombasa, 04°03'S 40°00'E].

Size: Up to 70 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: probably throughout southeast Africa, Kenya, Mozambique to mouth of Zambezi River. Depth to 50 m.

Literature: Khromov (1982).

### Sepia joubini Massy, 1927

Sepia joubini Massy, 1927, Annals of the South African Museum, 25: 161 [type locality: Cape Natal, Tugela River Mouth, Cape Natal, The Bluff, Durban].

Size: Females up to 64 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: South Africa, off Tugela River Mouth, 29°11'S 31°25'E, to Cape Natal. Off southern Mozambique, 24°S to 25°S. Saya-de-Malha Bank. Depth range from 66 to 170 m.

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova et al. (1995).

### Sepia kiensis Hoyle, 1885

Sepia kiensis Hoyle, 1885, Annals and Magazine of Natural History, (series 5)16: 194 [type locality: Arafura Sea, off Kai Island].

Size: Up to 37 mm mantle length

Geographical Distribution: Indo-Pacific: Kai Islands, possibly to Timor and northern Australia. Depth up to 256 m.

Literature: Adam and Rees (1966).

### Sepia koilados Reid, 2000

Sepia koilados Reid, 2000, Invertebrate Taxonomy, 14: 24.

Size: Males up to 68 mm mantle length; females up to 58 mm mantle length.

**Geographical Distribution:** Type locality: Australia: Western Australia, North West Shelf, 18°36'S 118°2'E to 18°39'S 118°4'E. General distribution: southeastern Indian Ocean: Western Australia, North West Shelf: 18°31'S 118°09'E to 19°12.6'S 116°25.8'E. Depth range from 182 to 203 m.

Literature: Reid (2000).

### Sepia limata (Iredale, 1926)

Arctosepia limata Iredale, 1926, The Australian Zoologist, 4: 193 [type locality: Australia: New South Wales, Manly Beach, 33°48'S 151°17'E].

Size: Males up to 35 mm mantle length; females up to 42 mm mantle length.

**Geographical Distribution:** Southwestern Pacific: Australia, southern Queensland to New South Wales, 26°30'S 153°44'E to 34°40'S 150°51'E. Depth range from 17 to 183 m.

Literature: Reid (2000).

#### Sepia mascarensis Filippova and Khromov, 1991

Sepia mascarensis Filippova and Khromov, 1991, Zoologichesky Zhurnal, 70(8): 63 [type locality: Indian Ocean, Saya-de-Malha Bank].

Size: From 67 to 124 mm mantle length.

**Geographical Distribution:** Western Indian Ocean: Saya-de-Malha Bank, 11°31'S 61°00'E, Mascarene Ridge, Cargados-Carajos Shoals. Depth range from 87 to 325 m.

Literature: Khromov et al. (1991), Filippova et al. (1995).

#### Sepia mestus Gray, 1849

Sepia mestus Gray, 1849. Catalogue of the Mollusca in the British Museum. Part I. Cephalopoda Antepedia, 108 [type locality: Australia].

Size: Males up to 77 mm mantle length; females up to 124 mm mantle length.

**Geographical Distribution:** Southwestern Pacific: Queensland: Escape Reef, 15°47'S 145°47'E to New South Wales, Jervis Bay, Murrays Beach, 35°08'S 150°46'E. Records from China and Viet Nam are now known to be misidentifications. *Sepia mestus* is an Australian endemic. Depth range from 0 to 22 m.

Literature: Lu (1998a), Reid and Lu (2005).

### Sepia mira (Cotton, 1932)

Tenuisepia mira Cotton, 1932, Records of the South Australian Museum, 4(4): 546 [type locality: Queensland, North-West Islet, Capricorn Group, 23°18'S 151°42'E].

Size: Up to 55 mm mantle length.

**Geographical Distribution:** Southwestern Pacific: Australia, New South Wales, Clarence R., 29°19'S 153°29'E, to off Wooli, 29°49'S 153°27'E. Depth range from 20 to 72 m.

Literature: Lu (1998a), Reid (1998).

### Sepia mirabilis Khromov, 1988

Sepia mirabilis Khromov, 1988, Zoologicheskii Zhurnal, 67: 785 [type locality: Arabian Sea, 12°22'N 54°28'E].

Size: Up to 70 mm mantle length.

Geographical Distribution: Western Indian Ocean: near Sokotra Island, probably to east Africa. Depth to 50 m.

Literature: Khromov (1988).

### Sepia novaehollandiae Hoyle, 1909

Sepia novaehollandiae Hoyle, 1909, Proceedings of the Royal Physical Society of Edinburgh, 17(6): 266 [type locality: South Australia, Kangaroo Island, 35°50'S 138°03'E].

Size: Up to 77 mm mantle length.

**Geographical Distribution:** Southern Indo-Pacific: Australia from Shellharbour, NSW, 34°35'S 150°52'E to Western Australia, North West Shelf, 18°57'S 118°45'E. Depth range from 15 to 348 m.

Literature: Adam and Rees (1966), Lu (1998a).

#### Sepia papillata Quoy and Gaimard, 1832

Sepia papillata Quoy and Gaimard, 1832, Voyage de decouvertes de l'Astrolabe pendant les annees 1826–1827–1828–1829, Zoologie, 2(1): 61 [type locality: Africa: South Africa, Cape of Good Hope].

Size: Up to 140 mm mantle length.

**Geographical Distribution:** Southeastern Atlantic and southwestern Indian Ocean: South Africa, from Lüderitz Bay, 26°11'S 15°10'E, to Natal coast off Tugela and Umvoti Rivers, 29°11'S 31°25'E. Mascarene Ridge. Depth range from 26 to 210 m.

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova and Khromov (1991), Augustyn et al. (1995), Filippova et al. (1995).

# Sepia pardex Sasaki, 1913

Sepia pardex Sasaki, 1913, Doubutsugaku Zasshi [Zoological Magazine, Tokyo], 25(292): 74 [type locality: Japan: Chiba Prefecture, Kajiyama].

Size: Up to 230 mm mantle length.

**Geographical Distribution:** Western Pacific: Japan, along the Pacific coast from the Chiba Peninsula and along the Japan Sea coast from Toyama Bay to South Korea, Taiwan Province of China and the East China Sea. Depth range unknown.

Literature: Okutani et al. (1987), Lu (1998b). Also cited as Sepia pardalis Sasaki, 1914.

# Sepia peterseni Appellöf, 1886

Sepia peterseni Appellöf, 1886, Svenska Vetenskaps-Akademiens Handlingar, 21(13): 23 [type locality: Japan].

Size: Up to 120 mm mantle length.

**Geographical Distribution:** Western Pacific: Japan, south of central Honshu to southern Kyushu, South Korea. Depth range from 20 to 100 m; inner shelf.

Literature: Okutani et al. (1987).

### Sepia plana Lu and Reid, 1997

Sepia plana Lu and Reid, 1997, Records of the Western Australian Museum, 18: 279 [type locality: southeastern Indian Ocean: Australia: Western Australia, North West Shelf, 14°15'S 121°59'E].

Size: Males up to 99 mm mantle length; females up to 151 mm mantle length.

**Geographical Distribution:** Australia: Western Australia, North West Shelf, 12°04'S 122°59'E to 17°55.5'S 118°16.0'E. Depth range from 396 to 505 m. Cuttlebones found off eastern Australia.

Literature: Lu and Reid (1997).

# Sepia plathyconchalis Filippova and Khromov, 1991

Sepia plathyconchalis Filippova and Khromov, 1991, Zoologichesky Zhurnal, 70(8): 66 [type locality: Indian Ocean, Saya-de-Malha Bank, 09°42'S 61°08'E].

Size: From 8 to 63 mm mantle length.

**Geographical Distribution:** Western Indian Ocean: Saya-de-Malha Bank; Cargados-Carajos Shoals; St Brandon Shoals. Shallow water species, depth range from 25 to 63 m.

Literature: Filippova and Khromov (1991).

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### Sepia pulchra Roeleveld and Liltved, 1985

Sepia pulchra Roeleveld and Liltved, 1985, Annals of the South African Museum, 96(1): 2 [type locality: Africa: South Africa, Cape Peninsula, Llandudno].

Size: Up to 22 mm mantle length.

Geographical Distribution: Southeastern Atlantic: South Africa, Cape Peninsula. Depth range from 15 to 50 m.

Literature: Boletzky and Roeleveld (2000).

# Sepia reesi Adam, 1979

Sepia reesi Adam, 1979, Records of the Western Australian Museum, 7(2): 200 [type locality: Western Australia, Rottnest Island, Salmon Bay].

Size: Up to 45 mm mantle length.

Geographical Distribution: Southeastern Indian Ocean: cuttlebone known only from the type locality.

Literature: Adam (1979).

# Sepia rhoda (Iredale, 1954)

Arctosepia rhoda Iredale, 1954, Australian Zoologist, 12(1): 75 [type locality: Australia: Western Australia, Point Cloates, 22°43'S 113°40'E].

Size: Males up to 61 mm mantle length; females up to 58 mm mantle length.

**Geographical Distribution:** Indo-Pacific: Australia, Northern Territory, Arafura Sea, 10°24'S 130°23'E to Western Australia, NW Shelf, 20°47'S 114°48'E. Depth range from 64 to 184 m.

Literature: Reid (2000).

### Sepia robsoni (Massy, 1927)

Rhombosepion robsoni Massy, 1927, Annals of the South African Museum, 25(4): 159 [type locality: Africa: South Africa, Hout Bay].

Size: Up to 20 mm mantle length.

**Geographical Distribution:** Southeastern Atlantic: South Africa, Hout Bay. Known only from the type locality. Depth range from 17 to 37 m.

Literature: Adam and Rees (1966), Roeleveld (1972).

### Sepia saya Khromov, Nikitina and Nesis, 1991

Sepia saya Khomov, Nikitina and Nesis, 1991, Zoologicheskii Zhurnal, 70(6): 13 [type locality: western Indian Ocean, Saya-de-Malha Bank, 10°30'S 61°10'E to 10°32'S 61°11'E].

Size: Up to 90 mm mantle length.

Geographical Distribution: Southwestern Indian Ocean: known only from the type locality. Depth range from 87 to 117 m.

Literature: Khromov et al. (1991).

### Sepia senta Lu and Reid, 1997

Sepia senta Lu and Reid, 1997, Records of the Western Australian Museum, 18: 286 [type locality: Australia: Western Australia, 14°07'S 122°06'E].

Size: Males up to 62 mm mantle length; females up to 83 mm mantle length.

**Geographical Distribution:** Southeastern Indian Ocean: Western Australia, North West Shelf, 12°04'S 122°51'E to 18°44'S 116°59'E. Possibly Indonesia. A very similar, probably closely related animal has been found in the Philippines. Depth range from 256 to 426 m.

Literature: Lu and Reid (1997).

#### Sepia sewelli Adam and Rees, 1966

Sepia sewelli Adam and Rees, 1966. Scientific Reports. The John Murray Expedition, 11(1): 61 [type locality: Africa: near Cape Guardafui, Somalia, 11°57'12"N 50°35'00"E to 11°56'42"N 50°39'12"E].

Size: Up to 30 mm mantle length.

**Geographical Distribution:** Western Indian Ocean: from Cape Guardafui, Somalia, 11°57'N 50°35'E to 05°40'S 39°17'E, to Zanzibar and probably Madagascar. Depth range from 37 to 238 m.

Literature: Adam and Rees (1966).

#### Sepia simoniana Thiele, 1920

Sepia simoniana Thiele, 1920, Deutsche Sudpolar-Expedition 1901–1903, 16(Zoology 8): 436 [type locality: Africa: South Africa Simon's Bay].

Size: Up to 185 mm mantle length.

**Geographical Distribution:** Western Indian Ocean: from Cape Town to Agulhas Bank, north to northern Kenya and southern Mozambique. Saya-de-Malha Bank. Depth to 190 m (usually less than 100 m).

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova and Khromov (1991), Augustyn et al. (1995), Filippova et al. (1995).

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### Sepia sokotriensis Khromov, 1988

Sepia sokotriensis Khromov, 1988, Zoologichesky Zhurnal, 67(5): 788 [type locality: Peoples' Democratic Republic of Yemen, Arabian Sea, Sokotra Island, 12°10'N 54°25'E].

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Size: Up to 80 mm mantle length.

Geographical Distribution: Western Indian Ocean: near Sokotra Island, probably east Africa. Depth to 100 m.

Literature: Khromov (1988).

#### Sepia subplana Lu and Boucher-Rodoni, 2001

Sepia subplana Lu and Boucher-Rodoni, 2001, Mémoires du Muséum National d'Histoire Naturelle, 185: 370 [type locality: southwest Pacific, Bayonnaise Bank, 11°54'S 179°32'W].

Size: Male 60 mm mantle length; female 55 mm mantle length (known only from types).

Geographical Distribution: Southwestern Pacific: known only from the type locality. Depth range from 400 to 600 m.

Literature: Lu and Boucher-Rodoni (2001).

# Sepia subtenuipes Okutani and Horikawa, 1987

Sepia subtenuipes Okutani and Horikawa, 1987. In: T. Okutani, M. Tagawa and H. Horikawa, 1987, Cephalopods from continental shelf and slope around Japan: 57 [type locality: Japan].

Size: Up to 94 mm mantle length.

**Geographical Distribution:** Western Pacific: southwestern Japan: Tosa Bay, Shikoku, Kii Channel. East China Sea. Depth range from 90 to 300 m.

Literature: Okutani et al. (1987).

#### Sepia tala Khromov, Nikitina and Nesis, 1991

Sepia tala Khromov, Nikitina and Nesis, 1991, Zoologischesky Zhurnal, 70(6): 17 [type locality: southwest Madagascar: off Cape Tala, 22°19'S to 22°23'S, 43°06'E].

Size: Up to 80 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: southwestern Madagascar off Cape Tala. Known only from the type locality. Depth range from 325 to 332 m.

Literature: Khromov et al. (1991).

### Sepia tanybracheia Reid, 2000

Sepia tanybracheia Reid, 2000, Invertebrate Taxonomy, 14: 47 [type locality: Australia: Western Australia, 12°36'S 123°45'E].

Size: Males up to 51 mm mantle length.

Geographical Distribution: Southeastern Indian Ocean: known only from type locality. Depth range from 200 to 205 m.

Literature: Reid (2000).

### Sepia tenuipes Sasaki, 1929

Sepia tenuipes Sasaki, 1929, Journal of the College of Agriculture, Hokkaido Imperial University, 20(supplement): 193 [type locality: Japan: Ibaraki Prefecture, Isohama].

Size: Up to 105 mm mantle length.

**Geographical Distribution:** Western Pacific: southwestern Japan, eastern Honshu and western Japan Sea to south of Kyushu, Korea and East China Sea. Depth range from 100 to 250 m.

Literature: Okutani et al. (1987), Kubodera and Yamada (1998).

#### Sepia thurstoni Adam and Rees, 1966

Sepia thurstoni Adam and Rees, 1966, John Murray Expedition 1933–34, Scientific Reports, 11(1): 2 [type locality: India, Madras, Ramesvaram Island, 09°18'N 79°19'E].

Size: Up to 110 mm mantle length.

**Geographical Distribution:** Indian Ocean: India, off Madras. Sri Lanka: off Negombo and Hambantota. Depth range from 20 to 40 m.

Literature: Adam and Rees (1966).

#### Sepia tokioensis Ortmann, 1888

Sepia tokioensis Ortmann, 1888, Zoologische Jahrbucher, (Systematik), 3: 653 [type locality: Japan: Tokyo Bay].

Size: Up to 90 mm mantle length.

**Geographical Distribution:** Western Pacific: Japan, from Tsugaru Strait to Kyushu and the Ohsumi Islands including Sagami Bay, Suruga Bay, western Japan Sea and Shimane Prefecture. Shelf.

Literature: Okutani et al. (1987) (as Sepia (Doratosepion) misakiensis).

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### Sepia tuberculata Lamarck, 1798

Sepia tuberculata Lamarck, 1798, Bulletin des Sciences, par la Societe Philomatique, 2(5): 130 [type locality: unknown].

Size: Up to 82 mm mantle length.

**Geographical Distribution:** Africa: South Africa, Melbosstrand, 33°43'S 18°26'E to Knysna, 34°03'S 23°03'E. Depth to 3 m.

Literature: Adam and Rees (1966), Roeleveld (1972).

# Sepia typica (Steenstrup, 1875)

Hemisepius typicus Steenstrup, 1875, Danske Videnskabernes Selskabs Skrifter, 5 Raekke, Naturvidenskabelig og Mathematisk, 10(7): 468 [type locality: Africa: South Africa, Table Bay, 33°50'S 18°27'E].

Size: Up to 26 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean and southeastern Atlantic: South Africa, from Saldanha Bay, 33°00'S 17°56'E, to southern Mozambique. Depth range from 2 to 290 m.

Literature: Adam and Rees (1966), Roeleveld (1972), Augustyn et al. (1995), Filippova et al. (1995).

#### Sepia vercoi Adam, 1979

Sepia vercoi Adam, 1979, Records of the Western Australian Museum, 7(3): 190 [type locality: Western Australia, west of Shark Bay, 25°31'S 112°29'E].

Size: Up to 46 mm mantle length (both sexes).

**Geographical Distribution:** Southeastern Indian Ocean: Western Australia, 18°31'S 118°09'E to 25°31'S 112°29'E. Depth range from 76 to 201 m.

Literature: Reid (2000).

#### Sepiella cyanea Robson, 1924

Sepiella cyanea Robson, 1924b, Report of the Fisheries and Marine Biological Survey of the Union of South Africa, 3: 13 [type locality: South Africa, Natal].

Size: Up to 80 mm mantle length.

**Geographical Distribution:** Southwestern Indian Ocean: Port Elizabeth and Durban, north to central Mozambique, 26°N and Madagascar. Depth range from 13 to 73 m.

Literature: Adam and Rees (1966), Roeleveld (1972), Filippova et al. (1995).

### Sepiella mangkangunga Reid and Lu, 1998

Sepiella mangkangunga Reid and Lu, 1998, The Beagle, Records of the Museums and Art Galleries of the Northern Territory, 14: 74 [type locality: Australia: Northern Territory, Stingray Head, 12°48'S 130°21'E].

Size: Males up to 58 mm mantle length; females up to 59 mm mantle length.

**Geographical Distribution:** Indo-Pacific: Australia, Northern Territory, 12°48'S 130°21'E to 13°14'S 130°57'E. Depth from 1.1 to 3.3 m.

Literature: Reid and Lu (1998).

### Sepiella ocellata Pfeffer, 1884

Sepiella ocellata Pfeffer, 1884, Abhandlungen aus dem Gebiete der Naturwissenschaften, Hamburg, 8(1): 13 [type locality: Java].

Size: Up to 50 mm mantle length.

**Geographical Distribution:** Indo-Pacific: Known only from the type locality. Depth range unknown. Known from a single male specimen only. The status of this species is questionable.

Literature: Reid and Lu (1998).

#### Note:

As this catalogue was being printed, the description of a new species of *Sepia* became available (Reid and Lu, 2005). It is hereby reported (in synthesis) for sake of completeness.

# Sepia filibrachia Reid and Lu, 2005

Sepia filibrachia Reid and Lu, 2005, Zootaxa, 911: 13 [type locality: Taiwan: Kaohsiung, Ling Yuan, 22°28'N 120°24'E].

Size: Males up to 62 mm, females up to 70 mm mantle length.

**Geographical Distribution:** Taiwan Province of China, Mu-Do-Yu, 23°44'N 119°35'E, Peng-Hu and Wu-chi, Taichung 24°17'N 120°30'E. South China Sea, Hainan Island, Haikou. 20°40'N 107°56'E; 18°40'N 106°47'E; 11°25'N 109°15'E. Viet Nam, Gulf of Tonkin, Guryanova. Depth range 34–95 m.

Interest to Fisheries: The species is marketed in Taiwan Province of China.

Literature: Reid and Lu (2005).

