Local Names: ITALY: Seppia pizzuta; SPAIN: Chopito.

Literature: Mangold-Wirz (1963, biology, western Mediterranean); Okutani (1980); Roper & Sweeney (1981, Species Identification Sheets, eastern central Atlantic, fishing areas 34/47 in part).

Sepia pharaonis Ehrenberg, 1831


Synonymy: *Sepia rouxi* Orbigny, 1841; *Sepia formosana* Berry, 1912; *Sepia formosana* Sasaki, 1929; *Sepia tigris* Sasaki, 1929.

FAO Names: En - Pharaoh cuttlefish
Fr - Seiche pharaon
Sp - Sepia faraónica

Diagnostic Features: Mantle broad. Fins wide, nearly as long as mantle. Tentacular clubs moderately long; protective membranes not meeting at base; 8 suckers in transverse rows with 5 or 6 median ones (3rd and 4th in the series) quite enlarged. Left arm IV hectocotylized: basal 12 quadriserial rows normal, next 10 rows with ventral suckers (2 rows) normal but those in dorsal 2 rows minute and separated from ventral rows by a fleshy, transversely grooved ridge. Colour: a vivid transverse tiger-stripe pattern (especially in males) on dorsal mantle and head; a narrow, light, interrupted line along bases of fins.

Geographical Distribution: Indo-Pacific: Red Sea, Arabian Sea to South China Sea, East China Sea and northern and northwestern Australia.

Habitat and Biology: A neritic, demersal species occurring from the coastline to about 110 m depth, but more abundant in the upper 40 m, particularly during the reproductive season, when it migrates shoreward and aggregates in shallow waters. Spawning takes place at water temperatures ranging from 18 to 24°C, from March to May around Hong Kong, but extends almost throughout the year around India, with peaks from September to December and April to June on the east coast and from October to December and March to April on the west coast (Silas et al., 1982). Peak spawning in the Red Sea extends from August through October, with the females participating as one-year olds and the males mostly as two-year olds (Sanders, 1981). Fertility increases with size. The eggs are laid in clusters and attached to plants, shells and other substrates.
On the Indian east coast, hatchlings attain mantle lengths of up to 10 cm after 6 months, almost 17 cm after 12 months, and about 20 cm after 16 months, while on the west coast they grow to 14 cm in 6 months, 21 cm in 12 months, 26 cm in 18 months and almost 30 cm in 2 years. Longevity is estimated at about 2 years on the east coast and 3 years on the west coast, with males living longer than females.

Food includes crustaceans and a variety of small demersal fishes. Cannibalism is not exceptional. The main predators of this species are demersal fishes.

Size: Maximum mantle length 43 cm for males and 33 cm for females off the People's Democratic Republic of Yemen; more southward the maximum size may not exceed 36 cm and 4.2 kg in males, and 30 cm and 2.4 kg in females. Common sizes in landings range from 15 to 20 cm mantle length.

Interest to Fisheries: Pharaoh cuttlefish supports industrial or artisanal fisheries throughout its range. Separate catch statistics are not included in the FAO Yearbook of Fishery Statistics, but IPFC (1982) reports annual catches for the period from 1969 to 1980 fluctuating between 3 000 and 10 000 metric tons. These catches were taken by the Japanese long distance trawler fleet operating off the People’s Democratic Republic of Yemen, following the decrease of Japanese fishing operations off West Africa. It has been suggested to increase the length at first capture through mesh regulations in the fishery off South Yemen in order to improve the catch-effort relationship (Sanders, 1981), but in 1982 the PDRY Government notified the Japanese ventures of the suspension of all operations because of the depletion of the stocks by this time. In the year before, 1981, the catch had already collapsed to 900 metric tons (Hotta, 1982). This species contributes about 90% of the cuttlefish catch off Australia by Chinese (Taiwan Province) pair trawlers amounting to some 1 000 metric tons in 1979 (Liu & Lai, 1982). It has occasionally been taken as bycatch by eastern Queensland prawn trawlers. On the Indian east and west coasts, Pharaoh cuttlefish is frequently caught with hand jigs and trolls, while off Hong Kong, spearling, lure-hooking and trawlers prevail, depending on the season. The flesh is thick, tender and excellent for human consumption.

Local Names: CHINA: Mak mo, Foo baan woo chak; JAPAN: Torafukouika, Mongouika (large individuals).

**Geographical Distribution**: Western Indian Ocean: from southern Mozambique to the Gulf of Aden, Red Sea, Arabian Sea, Gulf of Oman, Gulf between Iran and the Arabian Peninsula, Indian west and east coasts and Sri Lanka.

**Habitat and Biology**: A demersal, shallow water species ranging in depth from the coastline to over 40 m.

**Size**: Maximum mantle length 14 cm; common between 5 and 11 cm in Indian trawl catches off Waltair.

**Interest to Fisheries**: Taken by trawls in the Red Sea and along the Indian east coast. Off Waltair (northeast India), it is most abundant from the beginning of the year to June and in some years, from October to December; off Madras, it is taken in small quantities in local upwelling areas as bycatch to finfishes normally occurring in deeper waters, i.e., bigeyes (Priacanthus spp.) and Indian driftfish (Ariomma indica) (Silas et al., 1982). Separate catch statistics are not reported for this species.

**Local Names**:

**Literature**: Okutani (1980); Silas et al., (1982, biology, India).

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**Sepia recurvirostra** Steenstrup, 1875


**Synonymy**: *Sepia singaporensis* Pfeffer, 1884.

**FAO Names**: En - Curvespine cuttlefish  
Fr - Seiche hameçon  
Sp - Sepia ganchuda

**Diagnostic Features**: Mantle broad. Tentacles large with relatively small clubs, their swimming keel extending proximally a short distance beyond the base of the club; dorsal protective membrane extending down the stalk for some distance; protective membranes fused at the proximal base; 5 or 6 suckers in transverse rows with 5 or 6 median suckers greatly enlarged; a deep cleft nearly separates the sucker-bearing surface on the fenestrated dorsal protective membrane from the stalk. Left arm IV in males hectocotylized in its proximal third by suckers greatly reduced in size, especially those of the dorsal rows.
**Geographical Distribution**: Western Pacific: Andaman Sea, South China Sea, the Philippines and southern East China Sea.

**Habitat and Biology**: A demersal species inhabiting the continental shelf; in Hong Kong it occurs in depths of 50 to 140 m.

**Size**: Maximum size 17 cm dorsal mantle length and 0.4 kg weight.

**Interest to Fisheries**: This species is of some commercial relevance in Hong Kong where it enters multispecies trawl catches. Separate statistics are not reported for this species.

**Local Names**: CHINA: Jam mak yue; JAPAN: Asia kouika.

**Literature**: Tomiyama & Hibiya (1978); Okutani (1980).

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**Sepia savignyi** Blainville, 1827


**Synonymy**: None.

**FAO Names**: En - Broadback cuttlefish
Fr - Seiche gros dos
SP - Sepia robusta

**Diagnostic Features**: Mantle broadly oval, acuminate posteriorly. Tentacles long, slender, clubs narrow, their swimming keels narrow, barely extending beyond base of club; protective membranes narrow, separate, extending along stalk; 8 moderate-sized, subequal suckers (median ones slightly enlarged) in oblique, transverse rows.

**Geographical Distribution**: Western Indian Ocean: Red Sea, Gulf between Iran and the Arabian Peninsula and Gulf of Oman.

**Habitat and Biology**: A demersal neritic species; known depth range from about 25 to 70 m.

**Size**: Maximum mantle length 13 cm.

**Interest to Fisheries**: Undetermined.

**Local Names**:
**Sepia trygonina** (Rochebrune, 1884)


**Synonymy:** Dorasepion *trygoninum* Rochebrune, 1884.

**FAO Names:**
- En - Trident cuttlefish
- Fr - Seiche trident
- Sp - Sepia tridente

**Diagnostic Features:** Mantle elongate, narrow, bluntly tapered posteriorly. Fins narrow. Tentacular clubs short, with a well developed swimming keel extending proximally beyond the base of the club; dorsal protective membrane broad and separated at base from the ventral membrane; 8 suckers in very oblique, transverse rows; about 5 suckers in third longitudinal series greatly enlarged. Left arm IV hectocotylized; proximal third normal, followed by an area devoid of suckers, with a hollowed-out surface, covered with large, wrinkled protective membranes; distal part normal.

**Geographical Distribution:** Western Indian Ocean: Gulf of Aden and Red Sea (northern limits undetermined).

**Habitat and Biology:** A demersal species occurring over a depth range from 35 to 415 m.

**Size:** Maximum mantle length 5 cm.

**Interest to Fisheries:** Reported from a bottom-trawl resources survey in the Gulf of Aden, but its fishery potential is presently undetermined.

**Local Names:**

![Diagram of Sepia trygonina](image)
**Metasepia tullbergi** Appelöf, 1886

**Synonymy**: None.

**FAO Names**: En - Paintpot cuttlefish  
Fr - Seiche encriner  
SP - Sepia tintero

**Diagnostic Features**: Mantle as broad as long; dorsal surface of mantle, head and arms rugose; ventral surface of mantle with 10 to 13 pores on each side anteriorly. Fins broad and fused posteriorly. Tentacular clubs short, crescent-shaped with a broad swimming keel extending proximally on stalk for half the club length; dorsal protective membrane broad, separated at base of club from ventral protective membrane; 4 or 5 minute suckers in transverse rows across the club, 3 or 4 suckers enlarged. Arm suckers biserial; left arm IV hectocotylized, the basal two thirds has 10 to 12 pairs of minute, widely spaced suckers, the rows separated by a transversely ridged area, distal third with 5 or 6 pairs of enlarged suckers followed by minute suckers at the tip. Shell broad, acuminate anteriorly, nearly completely chitinized anteriorly, calcareous posteriorly.

**Geographical Distribution**: Western Pacific: Sea of Japan, Yellow Sea to Hong Kong and Taiwan (Province of China).

**Habitat and Biology**: A neritic, demersal species occurring on the continental shelf between the 40 and 100 m depth contours.

**Size**: Maximum mantle length 7 cm.

**Interest to Fisheries**: Currently there is no industrial fishery for this species. Its relevance in artisanal fisheries is undetermined.

**Local Names**: CHINA: Mak dau.

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**Sepiella inermis** Orbigny, 1848

**Synonymy**: Sepia (Sepiella) microcheirus Gray, 1849; Sepia affinis Eydoux & Souleyet, 1852; Sepiella maindroni Rochebrune, 1884.
Food of spineless cuttlefish consists primarily of small demersal fishes and crustaceans; cephalopods are a minor component of its diet.
Size: Maximum mantle length about 12.5 cm; maximum lengths in the Indian trawl catches are 11.2 cm on the east coast and 12.4 cm on the west coast off Cochin. Length at first maturity varies with stocks: off Waltair it is about 5.3 cm for males and 5.2 cm for females; off Madras, about 5.6 cm and 6.0 cm; and off Cochin 8.1 cm and 8.3 cm, respectively. Females grow larger than males (Silas et al., 1982).

Interest to Fisheries: One of the main commercial species in India and Sri Lanka, but separate statistics are not reported. Caught by trawls and a variety of artisanal gears, such as beach seines, fixed bag nets (“dol nets”), etc. In the Andaman Sea it is caught by push nets.

Local Names:

Literature: Okutani (1980); Silas et al. (1982, biological information on Indian stocks).

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**Sepiella japonica** Sasaki, 1929


Synonymy: Sepiella heylei Sasaki, 1929.

FAO Names: En - Japanese spineless cuttlefish  
Fr - Sépia inerme japonaise  
SP - Sepia inerme japonesa

Diagnostic Features: Mantle broadly oval; pore of caudal gland at posterior tip ventral to fins. Tentacular clubs elongate, with 20 minute subequal suckers in transverse rows. Arm suckers quadriserial; left arm IV hectocotylized in proximal third with the basal part modified by great reduction in size of suckers placed on a transversely ridged surface; ventral 2 rows of suckers close together, dorsal 2 rows separated. Shell spineless, its width 30 to 35% of length. Colour: upper surface of mantle dark brown, covered with white spots.

Geographical Distribution: Western Pacific: East China Sea, Taiwan (Province of China) to southern Japan.

Habitat and Biology: A coastal demersal species ranging in depth from the surface to about 50 m. The spawning season varies with temperature and usually peaks during February and March off Hong Kong and in May off Japan.

Size: Maximum size 20 cm mantle length and 0.8 kg weight.

Interest to Fisheries: The dominant cuttlefish caught in the Chekiang and Kiangsu provinces of China. It supports local trawl fisheries in southwestern Japan and is, in some years, very abundant in Hong Kong waters. In Japan most of the catch is dried and marketed as “surume”.

Local Names: CHINA: Mo jam woo chak, Ngor huet mak, JAPAN: Harinashikouika, Shirikusari, Shiriyakeika, Tsubekusari.

Literature: Voss & Williamson (1971, Hong Kong); Tomiyama & Hibiya (1978, Japanese fisheries); Okutani (1980).

Remarks: The species has been reared successfully in aquaculture experiments (Choe, 1966; under the name Sepiella maindron).
**Sepiella ornata** (Rang, 1837)


**Synonymy**: *Sepia ornata* Rang, 1837.

**FAO Names**: En - Ornate cuttlefish  
Fr - Sépia ornée  
SP - Sepia orlada

**Diagnostic Features**: Mantle elongate, ovoid; a round gland and pore visible ventrally between fins at posterior end. Tentacular clubs narrow, with 10 to 14 minute, equally sized suckers in transverse rows. Left arm IV hectocotylized on proximal half with 4 rows of minute suckers, the 2 dorsal rows widely separated, the 2 ventral rows close-set in a zig-zag pattern. Cuttlebone with broad, wing-like outer cone, spine absent, width 24 to 30% of length. Colour: reddish patches along dorsal bases of fins.

**Geographical Distribution**: Eastern Atlantic: from Angola to Mauritania.

**Habitat and Biology**: A demersal species ranging from about 20 to 150 m depth but most abundant in waters deeper than 50 m.

**Size**: Maximum mantle length 10 cm.

**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**:  
**Literature**: Tomiyama & Hibiya (1978, Japanese fisheries); Okutani (1980); Roper & Sweeney (1981, Species Identification Sheets, eastern central Atlantic, fishing areas 34/47 in part).