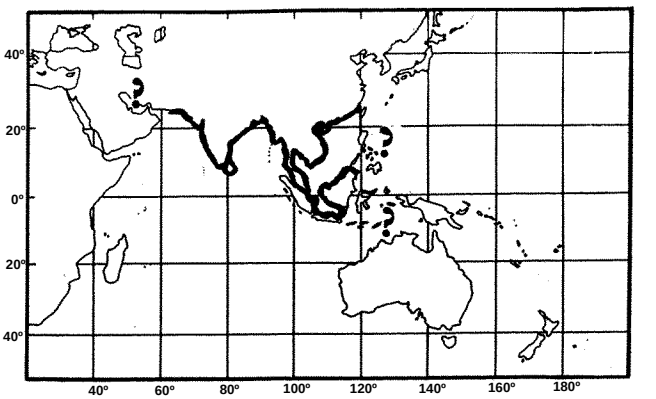
click for previous page

Geographical Distribution : Indian Ocean (coasts of Pakistan, India, Burma and south to Penang; apparently not yet found in Gulf of Oman or the "Gulf") and western Pacific (Malaysia, Indonesia north to Taiwan, but no records from Papua New Guinea or northern coasts of Australia).



Habitat and Biology : Marine, pelagic, presumably schooling, mostly inshore, perhaps tolerating estuarine conditions. Feeds on diatoms when young and prawn larvae, copepods and cypris when larger (Bapat & Bal, 1950). The number of museum specimens suggest that it is fairly common (but not in Bombay waters - Bapat & Bal, 1950).

Size : To 11 cm standard length, perhaps more.

Interest to Fisheries : Probably one of the commonest of Thryssa species, thus perhaps of some significance in artisanal catches.

Local Names :

Literature : Chacko (1950 - juveniles, presumably this species), Bapat & Bal (1950 - food), Dharmamba (1960 - breeding).

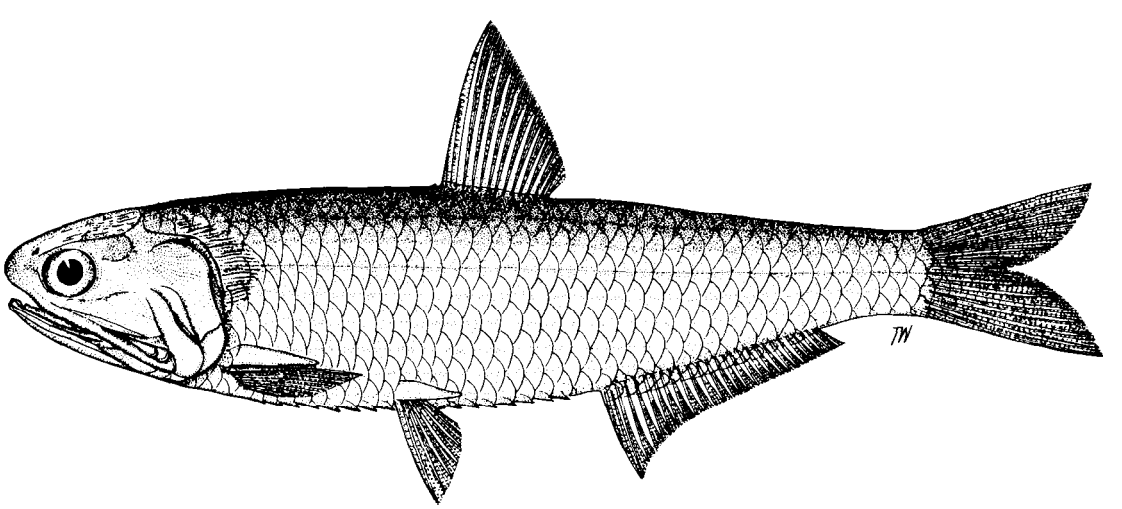
Thryssa encrasicholoides (Bleeker, 1852)

ENGR Thrys 22

Engraulis encrasicholoides Bleeker, 1851, Natuurk.Tijdschr.Ned.-Indië, 2:214 (Sulawesi; name only, thus a nomen nudum); Idem, 1852, Ibid., 3:173 (Jakarta, Surabaya, Kammal, Kupang); Idem, 1852, Verh.batav.Genoot. Kunst.Wet.,24:37 (Timor; presumed to post-date the previous publication).

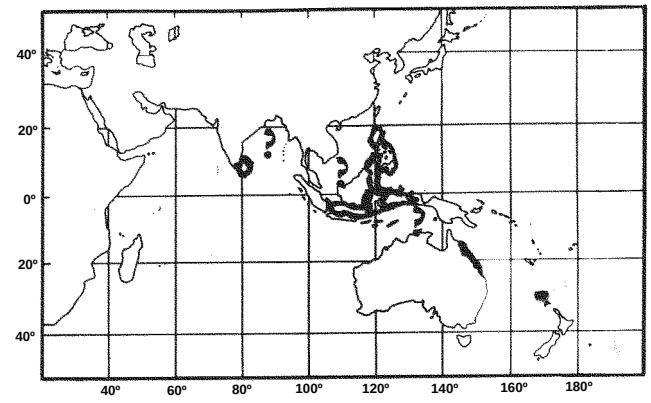
Synonyms : Anchoa duodecim Cope, 1869:405 (claimed Beesley's Point, New Jersey; evidently untrue - see Nelson, 1983); Engraulis baelama (part):Weber & de Beaufort,1913:33 (mixed material); Thrissocles baelama (part):Fowler, 1941d:683 (at least the Jakarta specimen); Thrissina baelama (part):Whitehead, Boeseman & Wheeler, 1966:116 (Bleeker's Celon specimen); Whitehead,1973b:228 (Ceylon); Thryssa baelama (part): Wongratana, 1980:258 (at least the Bleeker Sulawesi and Amboina specimens); Thrissina encrasicholoides:Nelson, 1983:99, fig.1 (upper jaw) (the Philippines, Sulawesi, "Indonesia", Queensland).

FAO Names : En - False baelama anchovy.



Diagnostic Features : Almost identical to E. baelama except in the following: 1 or 2 keeled scutes (lacking arms) immediately behind the isthmus, first and second supra-maxilla relatively longer, tip of maxilla blunter and perhaps not always reaching to front border of pre-operculum; also, fewer branched anal finrays (24 to 28; cf. 26 to 31 in T. baelama) and fewer pre-caudal but more caudal vertebrae (15 to 17 and 23 to 25 = 39 to 41; cf. 12 to 14, rarely 15 and 26 to 28, rarely 25 = 39 to 41 in T. baelama). Other species of Thryssa have a complete series of pie-pelvic scutes from isthmus to pelvic fin base; Stolephorus species lack post-pelvic scutes; Lycothrissa has canine teeth.

Geographical Distribution : Indian Ocean (Ceylon, India) and western Pacific (Java, Sulawesi, Timor, Ambon, the Philippines, northern Queensland). Presumably more widespread in Indian Ocean, but not previously separated from T. baelama.



Habitat and Biology : Probably similar to T. baelama, but not separated from it in previous records.

Size : To 10.7 cm standard length.

Interest to Fisheries : Presumably less than for E. baelama , but more data needed.

Local Names : See T. baelama.

Literature : Confused with T. baelama.

Remarks : The presence of 1 or 2 pre-pectoral scutes in some specimens of E. baelama was noted by Whitehead, Boeseman & Wheeler (1966:l18) and Whitehead (1973b:ZZIl). Nelson (1983) added differences in maxilla and supra-maxilla shape, as well as numbers of branched anal finrays and pre-caudal and caudal vertebrae, concluding that two species are present.

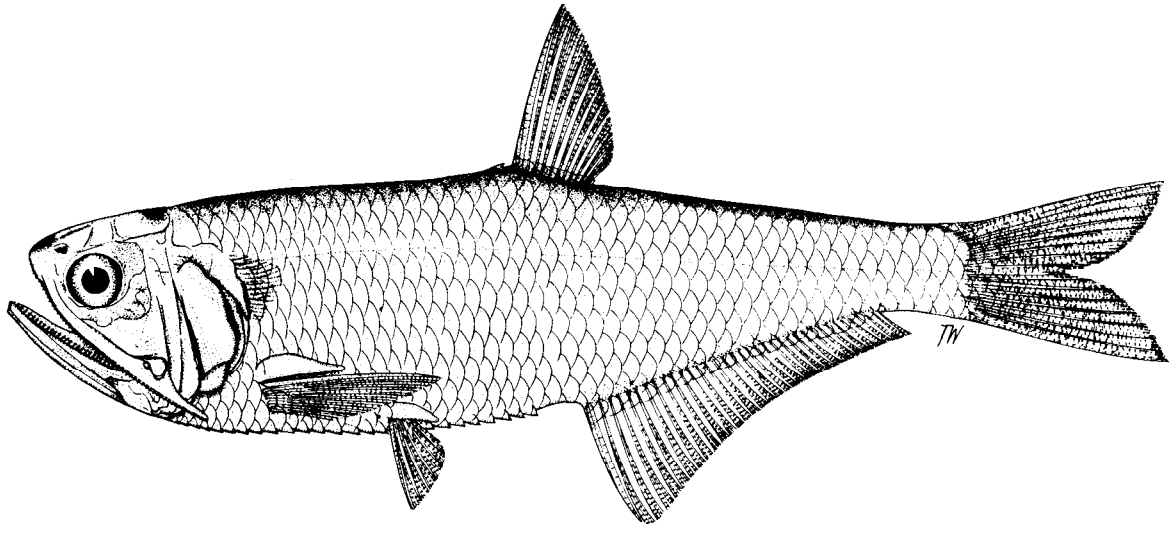
Thryssa gautamiensis Babu Rao, 1971

ENGR Thrys 16

Thryssa gautamiensis Babu Rao, 1970, Adv.Abstr.Contr.Fish.aquat.Sci.India, 4(1):63 (Godavari River; name only); Idem, 1971, Copeia, (3):479, fig.1 (Godavari and Hooghly Rivers).The name must date from 1971, its use in 1970 being a nomen nudum (Article 13(a)(i) of the International Code).

Synonyms : Thryssa gautamiensis-Wongratana, 1980:279, pls 245,246 (revision).

FAO Names : En - Gautama thryssa.



Diagnostic Features : Body compressed, belly with 14 to 17 (usually 16, rarely 14) plus 10 (rarely 11) = 25 to 27 (usually 26, rarely 24) keeled scutes from isthmus to anus. Tip of snout at about level of upper rim of eye, well above eye centre. Maxilla moderate, projecting slightly beyond edge of gill cover; first supra-maxilla minute, oval; jaw teeth slightly enlarged compared with other species. Lower gillrakers 17 to 20, usually 18 or 19. Anal with iii (rarely iv) 34 to 37 (rarely 33) finrays. A dark blotch behind upper part of gill opening; a pair of dark lines on back, from nape to caudal fin. Closely resembles T. malabarica, which has a deeper body (depth 34 to 37% of standard length; cf. only 23 to 28% in T. gautamiensis), smaller jaw teeth and small spots on cheek, gill cover, maxilla and paired fins. Other Indian species have a longer or shorter maxilla, or a higher or lower gillraker count.

Geographical Distribution : Indian Ocean (eastern coasts of India, possibly also Burma).

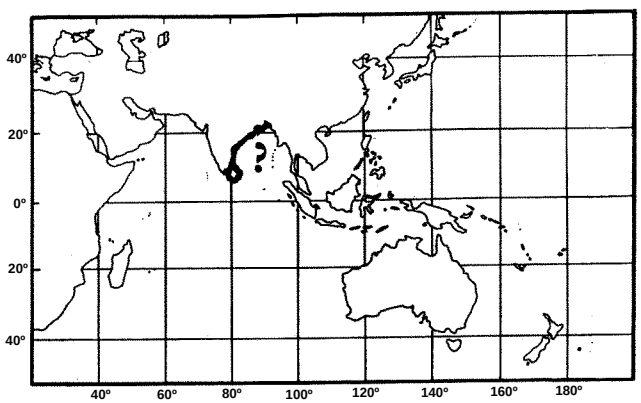
Habitat and Biology : Marine, pelagic and presumably schooling, mostly inshore and entering estuaries. More data needed.

Size : To 21.5 cm standard length.

Interest to Fisheries : Contributes to artisanal clupeoid catches in the Godavari estuary (Babu Rao, 1971).

Local Names :

Literature :



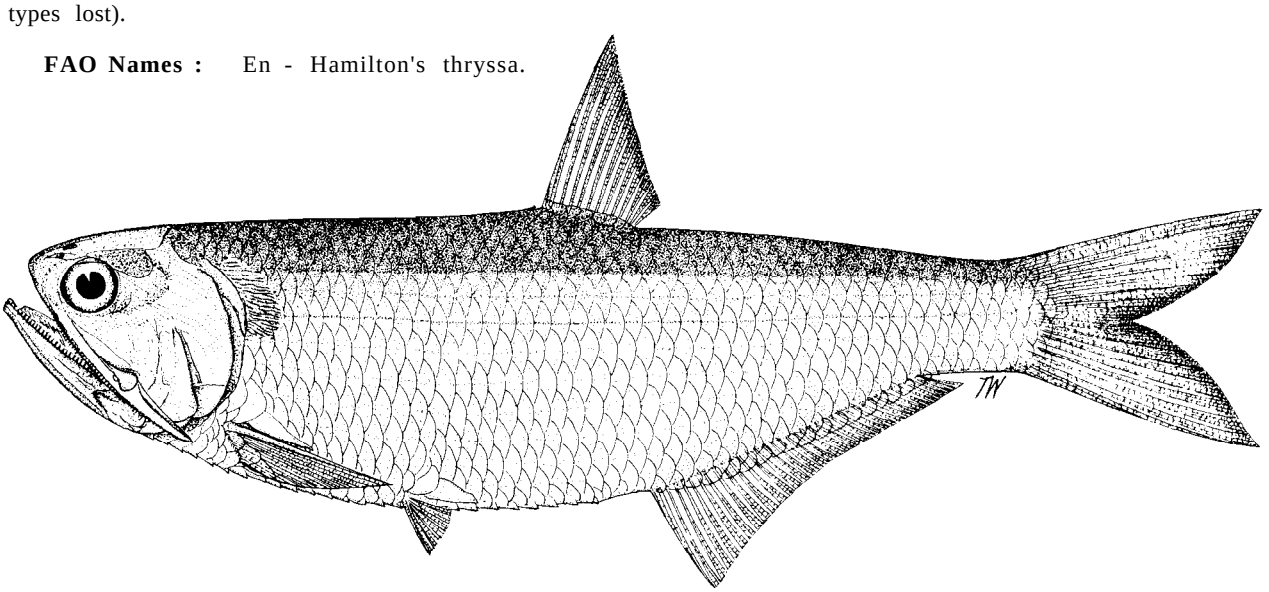
Thryssa hamiltonii (Gray, 1835)

ENGR Thrys 4

Thrissa hamiltonii Gray, 1835, Illustr.Ind.Zool., Hardwicke, 2:pl.92 fig.3 (no locality).

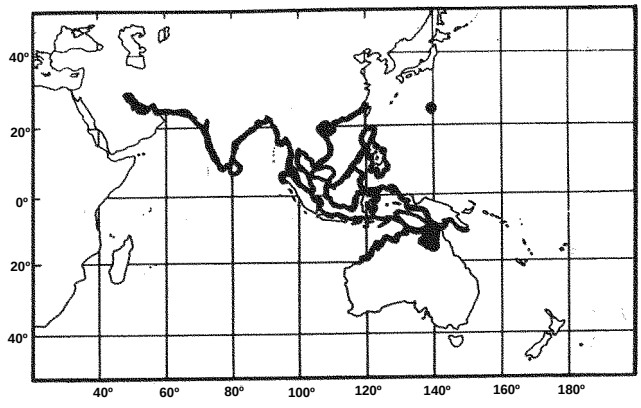
Synonyms : Engraulis grayi Bleeker, 1851:492 (Jakarta, Riau); Weber & de Beaufort, 1913:37, fig.17 (Sumatra); ? Engraulis nasuta Castelnau, 1878:51 (Norman River, Gulf of Carpenteria); Thrissocles hamiltonii: Fowler, 1941d:673 the Philippines, Kalimantan, Korea, Bombay; large synonymy, but probably many references not this species); Thryssa mystax:Chu, Tchang & Chen, 1963:111, fig.85 (East China Sea); Whitehead, 1966a:42 (Canton, Reeves specimens; misidentified); Scutengraulis hamiltonii:Munro, 1956:27, fig.191 (northern Australia); Idem, 1964: Papua New Guinea; Idem, 1967:46, p1.3, fig.39 (same); Thrissa hamiltonii:Shen, 1959:26 (Taiwan); Thryssa hamiltonii-Tortonese, 1964:22 (Fly River, Papua New Guinea); Whitehead, 1965b:273 (the "Gulf"); Whitehead, Boeseman & Wheeler, 1966:122, p1.15, fig.3 (Bleeker's figure) (lectotype for grayi); Whitehead, 1969a:266, fig.48 (Singapore); Idem, 1973b:234, fig.58 (synopsis); Roberts, 1978:29 (Fly River mouth; also his specimen of T. spinidens); Wongratana, 1980:282, pls 249,250 (revision); Whitehead & Bauchot, 1986:49 (nasuta, types lost).

FAO Names : En - Hamilton's thryssa.



Diagnostic Features : Body compressed, belly with 16 to 19 (rarely 15 or 20) plus 8 or 9 (rarely 10) = 23 to 26 (mostly 24) keeled scutes from isthmus to anus. Tip of snout above level of eye centre, usually at about level of upper rim of eye. Maxilla short or moderate, reaching to edge of gill cover or projecting slightly beyond; first supra-maxilla small, oval. Lower gillrakers 12 to 14 (less often 11 or 15). Anal with iii (rarely iv) 32 to 39 (mostly 35 to 37) finrays. A dark blotch behind upper part of gill opening; pigment lines along back. Overlaps the geographical ranges of 17 other Thryssa species, but most of these have more gillrakers and/or a longer or much longer maxilla. Most closely resembles T. mystax, in which the maxilla reaches the pectoral fin base and the tip of the snout is much lower (about level with eye centre); T. spinidens is also similar, but has much larger jaw teeth and more anal finrays (iii 41 to 45). See ENGR Thrys 4, Fishing Area 51, also Fishing Areas 57/71.

Geographical Distribution : Widespread in Indian Ocean (from the "Gulf" and Pakistan eastward to Burma, the Andamans and Pinang) and western Pacific (Indonesia south to Papua New Guinea and northern coasts of Australia, but perhaps not eastward to the New Hebrides, etc.; northward to Thailand, Sarawak, presumably the Philippines and certainly to Taiwan Island; also a record from the Bonin Islands).



Habitat and Biology : Marine, pelagic and presumably schooling, inshore and entering estuaries. More precise data needed, based on correct identifications; if referring to this species, then Bapat & Bal (1950) found its principle food to be prawns and copepods, supplemented by polychaetes and amphipods.

Size : To 20 cm standard length.

Interest to Fisheries : Contributes to artisanal catches of clupeoids and appears to be a rather common species of Thryssa (if identificatons are correct).

Local Names :

Literature : Devanesen & Varadarajan (1942 - eggs), Mookerjee & Mookerjee (1950 - general biology), Bapat & Bal (1950 - food), Vijayaraghavan, 1957 - as grayi, eggs), Masurekar & Rege (1960 - breeding). It is not certain, however, that the identifications were correct.

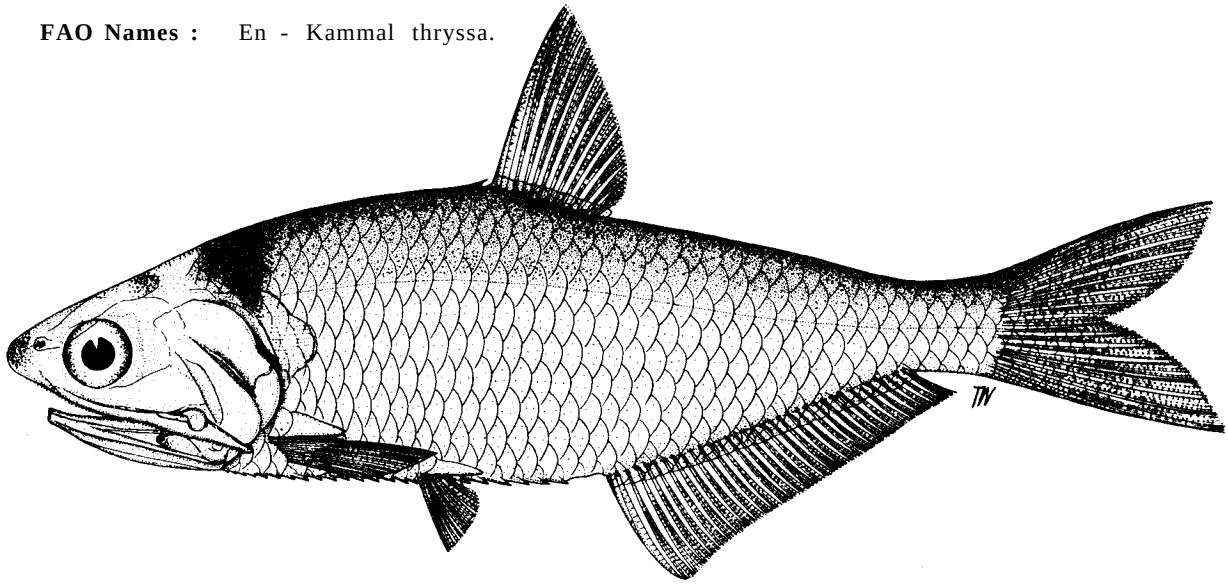
Thryssa kammalensis (Bleeker, 1849)

ENGR Thrys 12

Engraulis kammalensis Bleeker, 1849, Verh.batav.Genoot.Kunst.Wet., 22:13 (Madura Strait near Kammal and Surabaya).

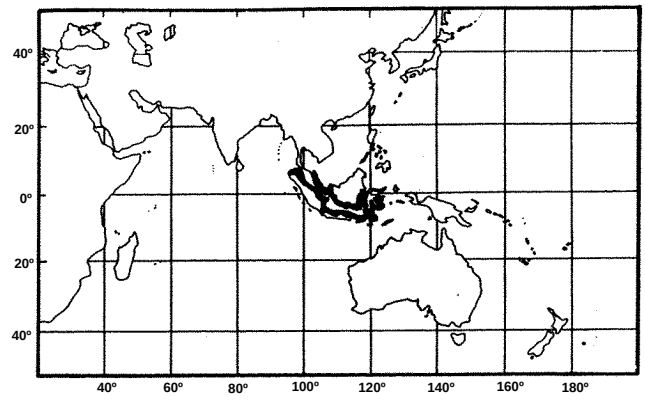
Synonyms : Engraulis rhinorhynchos Bleeker, 1852a:434 (Sampit, Jakarta, Surabaya, Kammal; replacement name for kammalensis); Idem, 1852b:40 (Jakarta, Surabaya, Kammal; repeat); Weber & de Beaufort, 1913:35 (Bleeker specimen); Thrissocles kammalensis:Fowler, 1941d:672 (large synonymy, but many non-Indonesian records included, some being T. kammalensoides; compiled); Scutengraulis kammalensis:Munro, 1964:149 (Papua New Guinea); Thryssa kammalensis-Whitehead, Boeseman & Wheeler, 1966:116,121, pl. 15, fig.2 (Bleeker figure) (types of kammalensis and rhinorhynchos); Whitehead, 1969a:207, fig.49 (Penang, Singapore); Wongratana, 1980:267, pls 233,234 (revision).

FAO Names : En - Kammal thryssa.



Diagnostic Features : Body compressed, belly with 15 or 16 (rarely 17) plus 8 or 9 (rarely 7) = 23 to 25 (rarely 24 or 26) keeled scutes from isthmus to anus. Maxilla moderate, reaching just to gill opening or a little beyond in large fishes; first supra-maxilla about half of second. Lower gillrakers 26 to 32 (usually 29 or more). Anal finrays usually iii 30 to 33. A diffuse dark "saddle" on nape. The latter is shared with T. aestuaria, which has a less pointed maxilla tip and more filaments in the pseudobranch (14 to 23; cf. only 4 to 10). All marine species of Thryssa in the area have a long maxilla, reaching distinctly beyond the gill opening. Species of Setipinna have a filamentous first pectoral finray.

Geographical Distribution : Indian Ocean (Penang only), western Pacific (southern Thailand to Singapore, southern Kalimantan, Java and Sulawesi).



Habitat and Biology : Marine, pelagic, presumably schooling and mostly inshore. More data needed, based on correct identifications.

Size : To 8.3 cm standard length, perhaps to 10 cm.

Interest to Fisheries : Presumably contributes to artisanal catches in Indonesia.

Local Names :

Literature :

Remarks : Records of this species from India refer to the rather similar T. kammalensoides, which lacks a first supra-maxilla, has more scutes and fewer gillrakers.

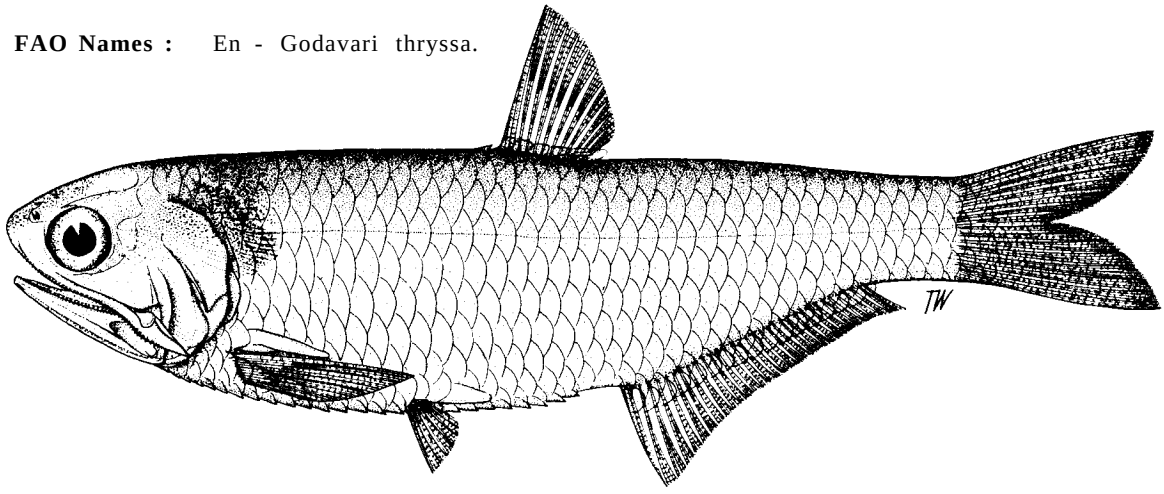
Thryssa kammalensoides Wongratana, 1983

ENGR Thrys 13

Thryssa (Scutengraulis) kammalensoides Wongratana, 1983, Japan J.Ichthyol., 29(4):401, fig.20 (Godavari estuary, eastern coast of India).

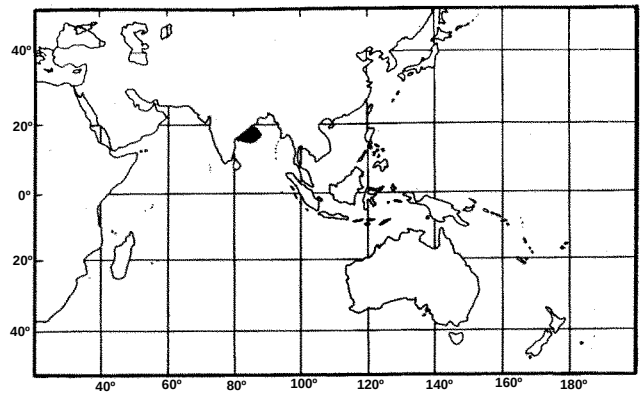
Synonyms : Thryssa kammalensoides:Wongratana, 1980:268, pl. 235 (revision; name not validly published).

FAO Names : En - Godavari thryssa.



Diagnostic Features : Body compressed, belly with 16 to 18 plus 10 or 11 = 26 to 29 keeled scutes from isthmus to anus. Maxilla moderately short, tip pointed and reaching just to edge of gill cover; first supra-maxilla absent. Lower gillrakers 24 or 25, their serrae not clumped. Tip of pelvic fin falling short of vertical from dorsal origin; anal finrays iii 31 or 32.A dark "saddle" on nape, extending to area behind upper part of gill opening. Of species in the area with a maxilla reaching or only slightly surpassing the edge of the gill cover, only T. polybranchialis has more than 20 gillrakers (25 to 27), but a much higher anal finray count (iii 35 to 39) and the tip of the snout above the level of the eye. Species of Setipinna have a filamentous first pectoral finray.

Geographical Distribution : Indian Ocean (Godavari estuary on eastern coast of India only, but presumably more widespread).



Habitat and Biology : Estuarine, but no indication if this signifies a marine or a riverine fish.

Size : To 11.2 cm standard length (the two types; other specimens not yet recorded).

Interest to Fisheries : Probably contributes to artisanal catches.

Local Names :

Literature :

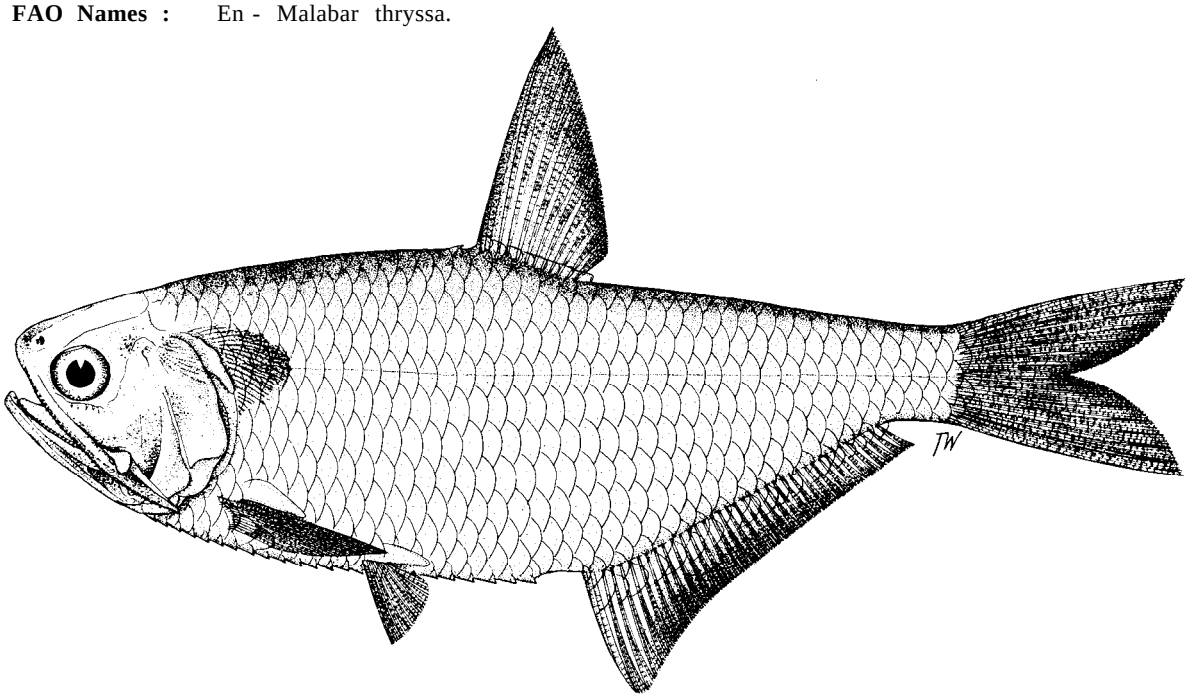
Thryssa malabarica (Bloch, 1795)

ENGR Thrys 5

Clupea malabarica Bloch, 1795, Naturg.ausländ.Fische, 9:115, pl. 432 (Tranquebar).

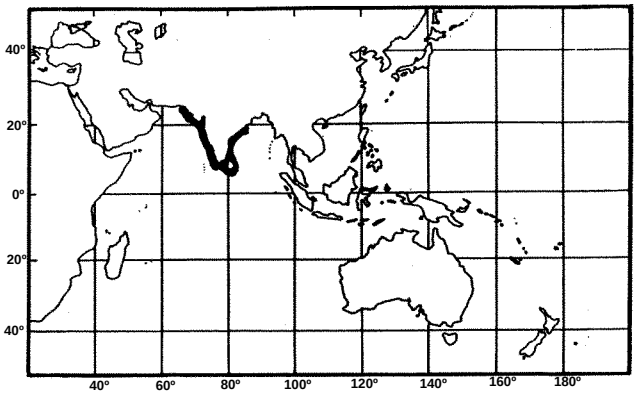
Synonyms : Thryssa cuvieri Swainson, 1839:293 (on Poorwa of Russell, 1803:75, p1.194); Fowler, 1941d:671 (compiled); Whitehead, 1968a:22 (Bay of Bengal); Idem, 1969b:274, fig.2 (head), pl.36 (the figure from Schneider, 1801); Idem, 1973b:235, fig.59 (synopsis; kempi, rambhae, scratchleyi and gautamiensis wrongly included in synonymy); Wongratana, 1980:281, pls 247,248 (revision).

FAO Names : En - Malabar thryssa.



Diagnostic Features : Body compressed, belly with 15 or 16 (rarely 14 or 17) plus 9 (rarely 8 or 10) = 23 to 26 (mostly 24) keeled scutes from isthmus to anus. Tip of snout at about level of upper rim of eye, well above eye centre. Maxilla moderate, projecting a little beyond edge of gill cover, but not to pectoral fin base; first supra-maxilla small, oval; jaw teeth small. Lower gillrakers 17 to 19. Anal finrays iii 34 to 38. A dark blotch behind upper part of gill opening; small spots on cheek, gill cover, maxilla and paired fins; gill arches pinky orange, inside of gill cover yellow and gold; inner part of anal fin deep yellow, the margin milky white. Closely resembles T. gautamiensis, which is more slender (depth 23 to 28% of standard length; cf. 34 to 37% in T. malabarica), has larger teeth, and lacks dark spots on the "face". Other Indian species have a longer or shorter maxilla, or a higher or lower gillraker count. See ENGR Thrys 5, Fishing Area 51, also Fishing Areas 57/71 (but excluding Papua New Guinea).

Geographical Distribution : Indian Ocean (coasts of India, perhaps reaching to Pakistan in the west, but not recorded from the "Gulf" or the Red Sea, its place in the "Gulf" being taken by T. whiteheadi).



Habitat and Biology : Marine, pelagic and schooling, mostly inshore and perhaps entering estuaries.

Size : To 17.5 cm standard length.

Interest to Fisheries : Contributes to artisanal clupeoid catches.

Local Names :

Literature : Although the name malabarica features in the literature, there can be no certainty that it refers to the present species.

Remarks : The pectoral fins are sometimes black (specimens from Tuticorin, Mangalore, Gulf of Manar, Porto Novo); perhaps this occurs in breeding fishes. As noted by Wongratana (1980:282, p1.246), this is the only anchovy known to have an extension of the swimbladder as a small conical pocket behind the exit to the anus.

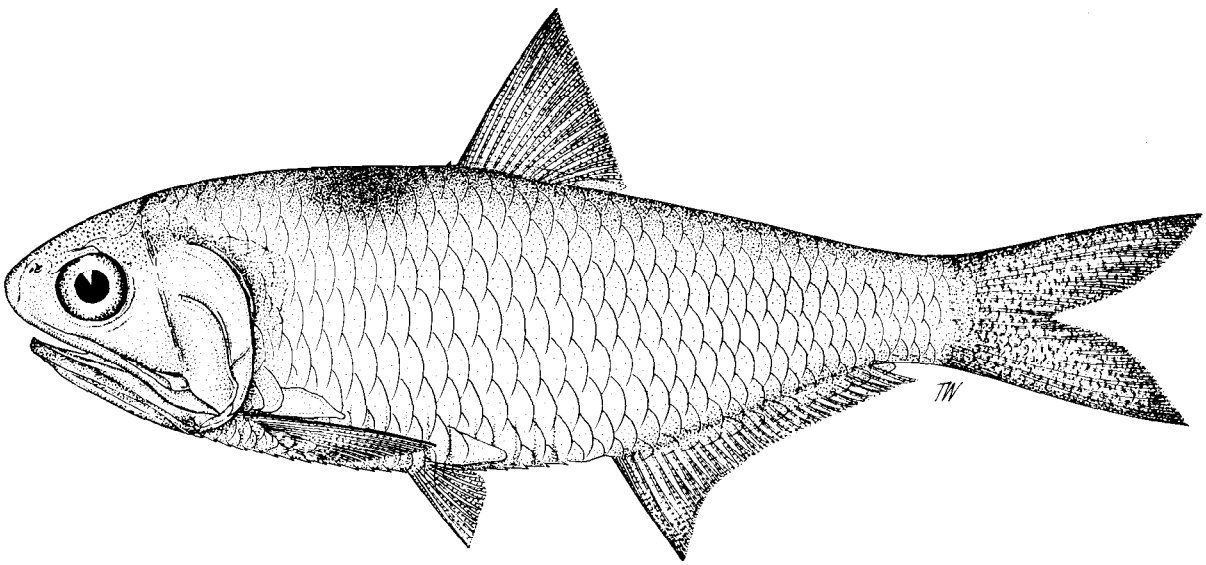
Thryssa marasriae Wongratana, 1986

ENGR Thrys 24

Thryssa marasriae Wongratana, 1986, Proc.biol.Soc.Wash., 100(1):108, fig.4 (King Creek, Shoal Bay, also Chambers Bay, near Darwin, Australia).

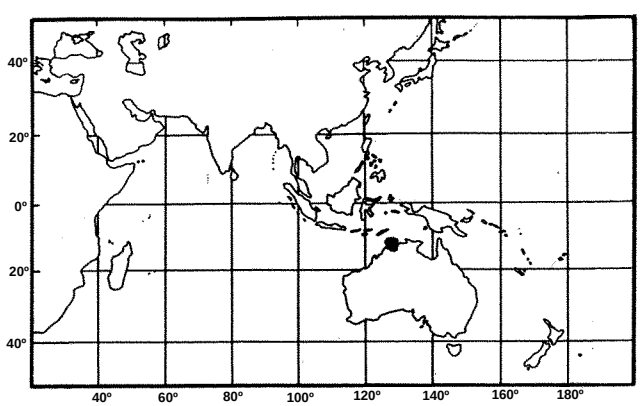
Synonyms : None.

FAO Names : En - Marasri's thryssa.



Diagnostic Features : Body fairly compressed, belly with 15 or 16 plus 8 or 9 = 23 to 25 keeled scutes from isthmus to anus. Maxilla short, reaching to hind border of pre-operculum; first supra-maxilla short, about half length of second. Lower gillrakers 25 to 28; pseudobranch moderate. Anal finrays iii to iv 26 to 28. A diffuse dark saddle just before dorsal fin origin; no dark blotch behind gill opening. Closely resembles T. aestuaria and T. brevicauda (dark saddle at nape, branched anal finrays 29 or more); of other species in the area, neither T. rastrosa (gillrakers 55 to 61) and T. scratchleyi (gillrakers 18 to 20) nor T. hamiltonii (maxilla to gill opening) have a dark saddle on back. Species of Setipinna have a filamentous first pectoral finray, while Papuengraulis has a tiny dorsal fin (5 or 6 finrays).

Geographical Distribution : Australia (northern coast around Darwin, but perhaps enters Gulf of Carpenteria).



Habitat and Biology : Presumably marine, pelagic and coastal, but its very close similarity to T. aestuaria and T. brevicauda suggests that it may also enter estuaries. More data needed.

Size : To at least 6.9 cm standard length, probably more.

Interest to Fisheries : Probably little or none.

Local Names :

Literature :

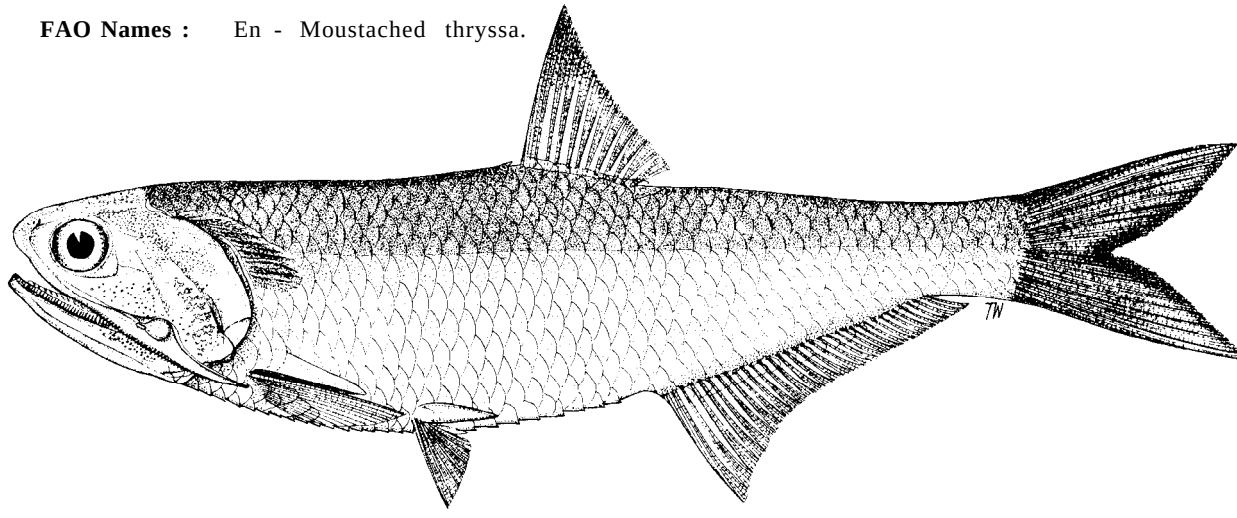
Thryssa mystax (Schneider, 1801)

ENGR Thrys 1

Clupea mystax Schneider, 1801, Syst.Ichthyol.Bloch.:426, pl.83 (Malabar).

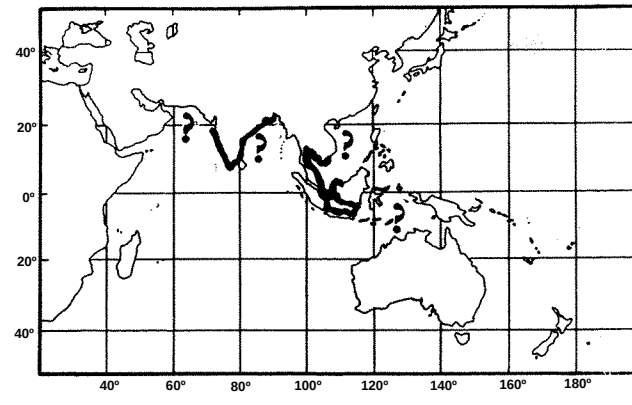
Synonyms : ? Thryssa subspinosa Swainson, 1839:293 (on Poorawah of Russell, 1803:72, pl.189); ? Thryssa poorawah Jerdon, 1851:145 (same); Engraulis mystacoides Bleeker, 1852b:42 (Jakarta, Surabaya, Samarang, Pasuruan, etc.); Stolephorus (Thryssa) valenciennesi Bleeker,1866:306 (Java, Sumatra, Singapore, Kalimantan); Engraulis hornelli Fowler, 1924:41 (Calicut); Thrissocles mystax:Fowler, 1941d:675 (Java, but presumably not Hong Kong or Bonin Islands specimens); Thryssa mystax-Whitehead, Boeseman & Wheeler, 1966:123,125, pl.16, fig.1 (Bleeker figure) (types of mystacoides and valenciennesi); Whitehead, 1969b:276 (type of mystax); Idem, 1973b:231 (synopsis); Wongratana, 1980:275, pls 241,242 (revision). Note: the unpublished name Thryssa yanamensis was proposed by Babu Rao, based on Godavari specimens ZSI. 4599/2.

FAO Names : En - Moustached thryssa.



Diagnostic Features : Body compressed, belly with 17 to 19 (rarely 16 or 20) plus 8 to 13 (most often 11) = 24 to 32 (usually 28 or 29) keeled scutes from isthmus to anus. Tip of snout on a level with eye centre. Maxilla long, reaching to or almost to base of first pectoral finray; first supra-maxilla oval, minute. Lower gillrakers 14 to 16 (rarely 13 or 17), the serrae on the inner edge even and not clumped. Anal finrays iii 29 to 37 (usually 33 to 35). A dark blotch behind upper part of gill opening. Of species in the area with a maxilla more or less reaching the pectoral fin base, and with an overlapping range of gillrakers, T. gautamiensis, T. malabarica, T. hamiltonii and T. dayi all have the tip of the snout above the level of eye centre, usually level with the upper rim of the eye; in addition, the first two have more than 16 gillrakers. See ENGR Thrys 1, Fishing Area 51, also Fishing Areas 57/71.

Geographical Distribution : Indian Ocean (western and eastern coasts of India, also Burma south to Pinang) and western central Pacific (Indonesia south to Java).



Habitat and Biology : Marine, pelagic and schooling, mostly inshore and entering estuaries. Confusions in identification make all previous biological studies suspect.

Size : To 15.5 cm standard length.

Interest to Fisheries : Enters artisanal catches along Indian coasts and is one of the commonest species of Thryssa (if identifications have been correct).

Local Names : INDIA: Khoira (Andaman Islands).

Literature : Gopinath (1946 - larvae), Venkatamaran (1956 - general biology), Dharmamba (1960 - breeding), Basheerudin & Nayar (1962 - juveniles), Ganapati & Rao (1962 -feeding), Rao (1967 - larval abundance in Mahanadi estuary). There is no certainty that the identifications were correct, however. The very useful paper by Hoda (1983) on T. mystax catches off Pakistan may not necessarily refer to this species.

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