

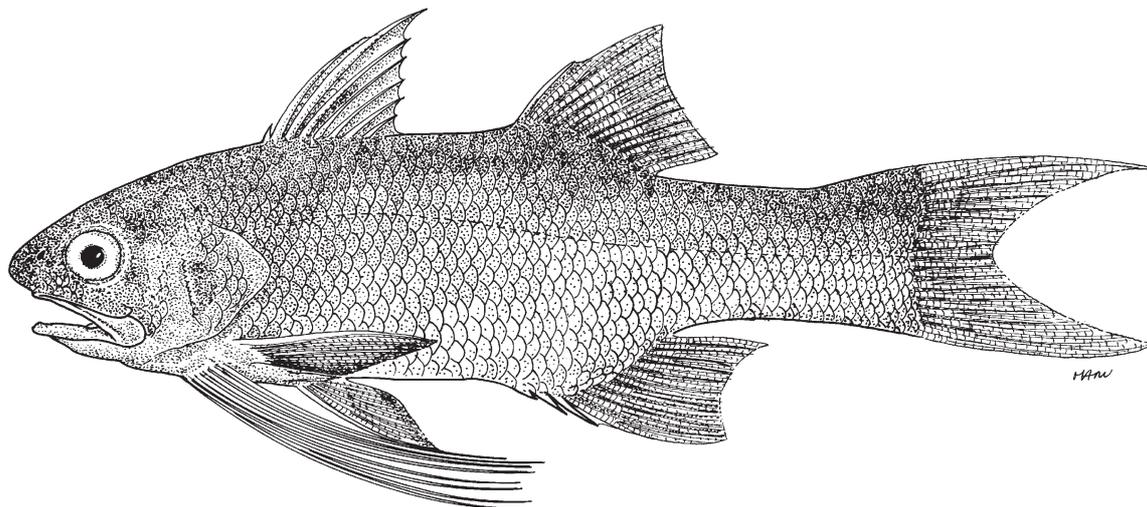
***Filimanus sealei*** (Jordan and Richardson, 1910)

**Fig. 53; Plate Ig**

*Polydactylus opercularis* Seale and Bean, 1907: 234 [type locality: Zamboanga, Mindanao, Philippines; holotype (USNM 57844, 124 mm standard length); junior secondary homonym of *Trichidion opercularis* Gill, 1863]. *Polydactylus sealei* Jordan and Richardson, 1910: 16 (replacement name for *P. opercularis* Seale and Bean).

**Synonyms:** None.

**FAO Names:** **En** - Eightfinger threadfin; **Fr** - Barbure à huit doigts; **Sp** - Barbudo de ocho dedos.



**Fig. 53 *Filimanus sealei***

**Diagnostic Features:** A small species. Body depth at first dorsal-fin origin 29 to 35% (mean 32%) of standard length; head length 29 to 34% (mean 32%) of standard length. Snout pointed; occipital profile nearly straight. Posterior margin of maxilla extending beyond level of posterior margin of adipose eyelid; depth of posterior margin of maxilla less than eye diameter; upper-jaw length 14 to 16% (mean 16%) of standard length; lip on lower jaw well developed, dentary teeth restricted to dorsal surface; teeth villiform in narrow bands on palatines and ectopterygoids; vomer with an inconspicuous tooth plate. Posterior margin of preopercle serrated. First dorsal fin with VIII spines, all spine bases of similar thickness; second dorsal fin with I spine and 11 or 12 (mode 12) soft rays; anal fin with III spines and 11 soft rays, anal-fin base approximately equal to or greater than second dorsal-fin base; pectoral fin with 14 or 15 (mode 14) unbranched rays, its length 24 to 28% (mean 25%) of standard length, posterior tip just short of level of posterior tip of pelvic fin; pectoral filaments 8 (rarely 7), first filament shortest; third and fourth filaments usually longest, its length 37 to 55% (mean 42%) of standard length, reaching to (or just short of) level of anal-fin origin; caudal fin deeply forked, upper and lower caudal-fin lobes not filamentous, upper caudal-fin lobe 33 to 42% (mean 38%) of standard length. Pored lateral-line scales 46 to 50 (mode 49); lateral line simple, extending from upper end of gill opening to mid-distal margin of caudal-fin membrane; scale rows above lateral line 6 or 7 (mode 7), below 9 or 10 (mode 10). Gillrakers (total) 40 to 48 (mode 46). Vertebrae 10 precaudal and 14 caudal; supraneural bones 3. **Colour:** Upper sides of head and trunk with blue tinge, becoming silvery white on lower sides; fins yellow with black at margins.

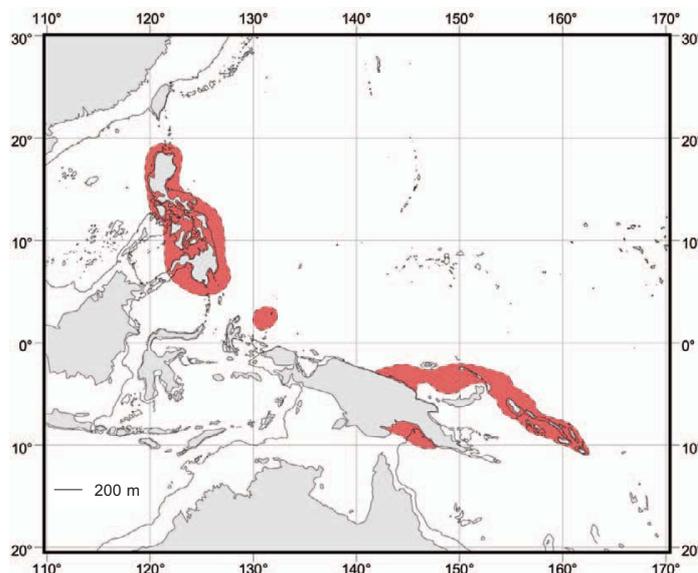
**Geographical Distribution:** In the western Pacific, where it ranges from the Philippines to the Solomon Islands, including Papua New Guinea and the Bismarck Archipelago (Fig. 54). A single specimen (ANSP 123498, 108 mm standard length) supposedly collected from Western Australia in 1950, lacked detailed locality and other collection data. Accordingly, Australian distribution of the species still requires confirmation.

**Habitat and Biology:** See above under genus account. No other data are available.

**Size:** Maximum standard length at least 15 cm (Feltes, 1991).

**Interest to Fisheries:** None.

**Local Names:** PAPUA NEW GUINEA: Eight-fingered threadfin.



**Fig. 54 *Filimanus sealei***  
■ Known distribution

**Literature:** Feltes (1991); Feltes *in* Carpenter and Niem (2001).

**Remarks:** *Polydactylus opercularis* (Gill, 1863) was originally described as *Trichidion opercularis* on the basis of a single specimen (apparently lost) from the west coast of central America. Although the former was regarded as a valid species, Seale and Bean (1907) overlooked Gill's (1863) description and described *Polydactylus opercularis* on the basis of a single specimen (USNM 57844, 124 mm standard length) from Zamboanga, Mindanao, Philippines. Jordan and Richardson (1910) recognized this designation as a homonym and provided the replacement name of *P. sealei*.

*Filimanus sealei* can be easily distinguished from other congeners by the number of pectoral filaments (usually 8 versus usually 6 in *F. hexanema* and *F. xanthonema*, and 7 in *F. heptadactyla*, *F. perplexa* and *F. similis*).

*Filimanus similis* Feltes, 1991

Fig. 55; Plate 1h

*Filimanus similis* Feltes, 1991: 318, fig. 12 [type locality: Beruwala, Sri Lanka; holotype (USNM 304495, 99 mm standard length); 43 paratypes (AMS I. 211033-004, 3 specimens, 124 to 127 mm standard length; ANSP 74846, 2 specimens, 69 to 73 mm standard length; BMNH 1860.3.19.56, 105 mm standard length; BPBM 19048, 2 specimens, 101 mm standard length; CAS SU 14591, 116 mm standard length; CAS SU 22901, 99 mm standard length; FMNH 58982, 113 mm standard length; LACM 38134-17, 19 specimens, 82 to 104 mm standard length; USNM 149704, 3 specimens, 70 to 98 mm standard length; USNM 278215, 82 mm standard length; USNM 278202, 2 specimens, 61 to 69 mm standard length; USNM 278242, 7 specimens, 87 to 103 mm standard length)].

**Synonyms:** None.

**FAO Names:** **En** - Indian sevenfinger threadfin; **Fr** - Barbure sept doigts des Indes; **Sp** - Barbudo de siete dedos índico.

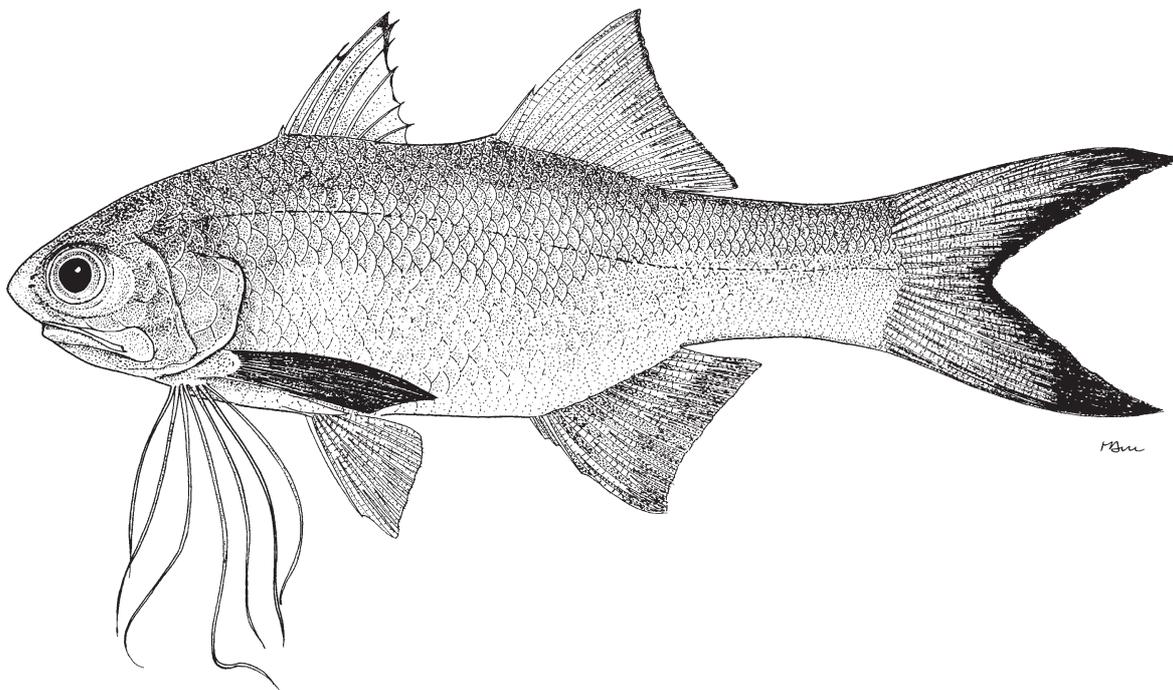


Fig. 55 *Filimanus similis*

**Diagnostic Features:** A small species. Body depth at first dorsal-fin origin 30 to 34% (mean 32%) of standard length; head length 29 to 34% (mean 31%) of standard length. Snout pointed; occipital profile nearly straight. Posterior margin of maxilla extending slightly beyond level of posterior margin of adipose eyelid; upper-jaw length 13 to 17% (mean 15%) of standard length; depth of posterior margin of maxilla less than eye diameter; lip on lower jaw well developed, dentary teeth restricted to dorsal surface; teeth villiform in narrow bands on palatines and ectopterygoids; vomer with an inconspicuous tooth plate. Posterior margin of preopercle serrated. First dorsal fin with VIII spines, all spine bases of similar thickness; second dorsal fin with I spine and 11 to 13 (mode 12) soft rays; anal fin with III spines and 10 to 12 (mode 11) soft rays, anal-fin base approximately equal to or greater than second dorsal-fin base; pectoral fin with 14 to 16 (mode 15) unbranched rays, its length 24 to 31% (mean 27%) of standard length, posterior tip just short of level of posterior tip of pelvic fin; pectoral filaments 7, first filament shortest, not reaching to level of posterior tip of pelvic fin; third and fourth filaments usually longest, its length 25 to 48% (mean 39%) of standard length, reaching to (sometimes extending slightly beyond) level of anal-fin origin; caudal fin deeply forked, upper and lower caudal-fin lobes not filamentous, upper caudal-fin lobe 31 to 44% (mean 38%) of standard

length. Pored lateral-line scales 45 to 49 (mode 48); lateral line simple, extending from upper end of gill opening to mid-distal margin of caudal-fin membrane; scale rows above lateral line 5 to 7 (mode 6), below 9 to 11 (mode 10). Gillrakers (total) 40 to 49 (mode 43). Vertebrae 10 precaudal and 14 caudal; supraneural bones 3. **Colour:** Upper sides of head and trunk with brown tinge, becoming golden on lower sides; posterior margins of first, second dorsal, anal, and caudal fins blackish, remaining parts yellowish; pectoral fin mostly black; base of pectoral filaments white, becoming yellowish white on posterior tips; base of pelvic fin white, other parts yellowish.

**Geographical Distribution:** In the eastern Indian Ocean where it ranges from Pakistan to the Andaman Sea (Fig. 56). The species has currently been recorded from Pakistan, India, Sri Lanka and Thailand (Phuket, west coast of Malay Peninsula).

**Habitat and Biology:** See above under genus account. No other data are available.

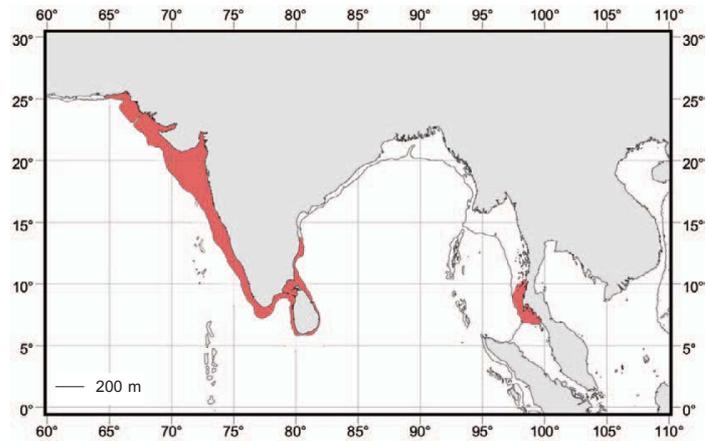
**Size:** Maximum standard length at least 13 cm.

**Interest to Fisheries:** A local bottom trawl fishery exists in southern parts of India.

**Local Names:** MYANMAR: Za yaw.

**Literature:** Feltes (1991).

**Remarks:** *F. heptadactyla* had been considered to be widely distributed in the Indo-Pacific. However, Feltes (1991) recognized that the species was restricted to the Pacific Ocean, including Indonesia, and described *F. similis* as a new species for Indian Ocean examples previously identified as *F. heptadactyla*. Comparisons of *F. similis* with *F. heptadactyla* are given in the account of the latter.



**Fig. 56** *Filimanus similis*  
■ Known distribution

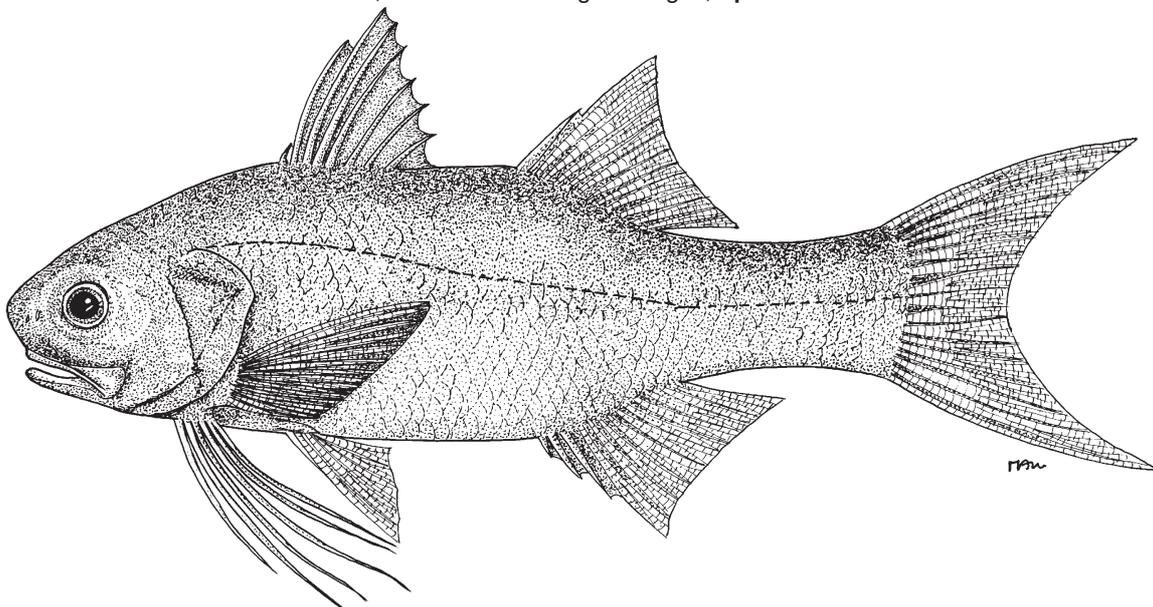
***Filimanus xanthonema* (Valenciennes, 1831)**

**Fig. 57; Plate IIa**

*Polynemus xanthonemus* Valenciennes in Cuvier and Valenciennes, 1831: 517 [type locality: Pondicherry, India; lectotype (MNHN A. 3033, 1 of 2 specimens, 109 mm standard length) designated by Feltes, 1991; paralectotype (MNHN A. 3033, 1 of 2 specimens, 107 mm standard length)].

**Synonyms:** *Polynemus diagrammicus* Bleeker, 1849: 60 (type locality: Jakarta, Java, Indonesia; type material probably lost, see Feltes, 1991). *Polynemus pfeifferi* Bleeker, 1853a: 249 [type locality: Priaman, Sumatra, Indonesia; holotype probably included in RMNH 6008 (5 specimens, 39 to 105 mm standard length), see Feltes, 1991]. *Polydactylus konadaensis* Mishra and Krishnan, 1993: 285 [type locality: Konada, Andhra Pradesh, India; holotype (ZSI/MBS-F-631, 105 mm standard length); paratype (ZSI/MBS-F-632, 97 mm standard length)].

**FAO Names:** En - Yellowthread threadfin; Fr - Barbure à doigts oranges; Sp - Barbudo de dedos amarillos.



**Fig. 57** *Filimanus xanthonema*

**Diagnostic Features:** A small species. Body depth at first dorsal-fin origin 27 to 35% (mean 31%) of standard length; head length 28 to 35% (mean 31%) of standard length. Snout pointed; occipital profile nearly straight. Posterior margin of maxilla extending slightly beyond level of posterior margin of adipose eyelid; upper-jaw length 14 to 17% (mean 15%) of standard length; depth of posterior margin of maxilla less than eye diameter; lip on lower jaw well developed, dentary teeth restricted to dorsal surface; teeth villiform in narrow bands on palatines and ectopterygoids; vomer with an inconspicuous tooth plate. Posterior margin of preopercle serrated. First dorsal fin with VIII spines, all spine bases of similar thickness; second dorsal fin with I spine and 11 to 13 (mode 12) soft rays; anal fin with III spines and 10 to 12 (mode 11) soft rays, anal-fin base approximately equal to or greater than second dorsal-fin base; pectoral fin with 13 to 15 (mode 15) unbranched rays, its length 23 to 28% (mean 26%) of standard length, posterior tip just short of level of posterior tip of pelvic fin; pectoral filaments usually 6 on each side but occasionally 5 on each side, or asymmetrically 5 and 6 or 6 and 7, first filament shortest, not reaching to level of posterior tip of pelvic fin; third and fourth filaments usually longest, its length 27 to 47% (mean 38%) of standard length, reaching to (sometimes extending slightly beyond) level of anal-fin origin; caudal fin deeply forked, upper and lower caudal-fin lobes not filamentous, upper caudal-fin lobe 26 to 44% (mean 36%) of standard length. Pored lateral-line scales 43 to 52 (mode 47); lateral line simple, extending from upper end of gill opening to mid-distal margin of caudal-fin membrane; scale rows above lateral line 5 to 8 (mode 6), below 9 to 12 (mode 10). Gillrakers (total) 36 to 46 (mode 43). Vertebrae 10 precaudal and 14 caudal; supraneural bones 3. **Colour:** Upper sides of head and trunk with brown tinge, becoming golden on lower sides; posterior margins of first, second dorsal, anal, and caudal fins blackish, remaining parts yellowish; pectoral fin mostly black; base of pectoral filaments white, becoming yellowish white on posterior tips; base of pelvic fin white, other parts yellowish.

**Geographical Distribution:** *F. xanthonema* is distributed in the eastern Indian and western Pacific Oceans where it ranges from east coast of India to Lombok Island, Indonesia (Fig. 58).

**Habitat and Biology:** Available collection data for *F. xanthonema* indicate that the species occurs on muddy bottoms from depths of 1 to 30 m. According to Hida (1967), *F. xanthonema* exhibits protandry, sex changing from male to female within a narrow size range. Males range from 9.0 to 11.0 cm standard length with a peak at 10.0 cm, females ranging from 10.0 to 11.5 cm with a peak at 10.5 to 11.0 cm. Hermaphrodites range from 9.0 to 11.5 cm with a peak at 10.0 cm. *Filimanus xanthonema* feeds on small crustaceans, especially Mysidacea and shrimps in the Bay of Bengal (Hida, 1967).

**Size:** Maximum standard length at least 14 cm (Feltes, 1991).

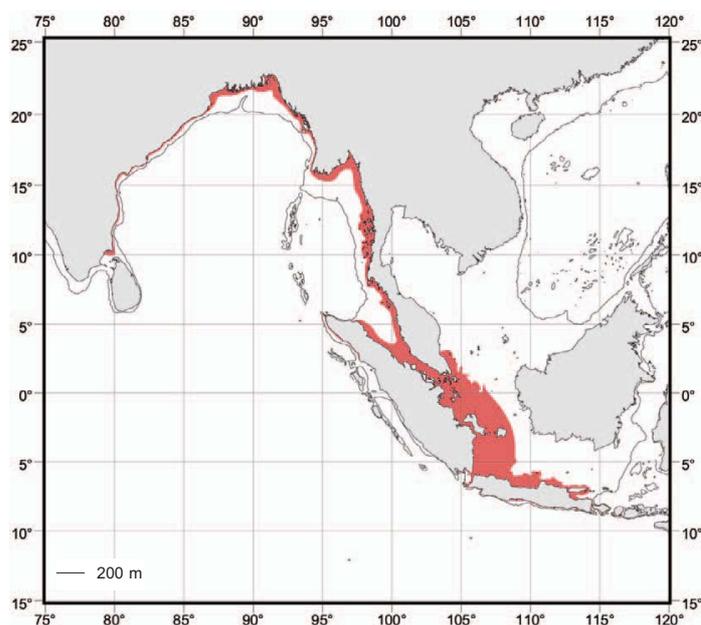
**Interest to Fisheries:** None.

**Local Names:** MYANMAR: Za yaw.

**Literature:** Feltes (1991); Motomura *et al.* (2001b); Feltes in Carpenter and Niem (2001).

**Remarks:** *F. xanthonema* was originally described as *Polynemus xanthonemus* on the basis of 2 specimens registered as MNHN A. 3033. The larger (109 mm standard length, with 6 pectoral filaments on each side) of the 2 specimens was designated as lectotype by Feltes (1991), the paralectotype (107 mm standard length) having asymmetrically 6 and 7 pectoral filaments. *Polynemus diagrammicus*, from Jakarta, Java, Indonesia, and *P. pfeifferi*, from Priaman, Sumatra, Indonesia, were regarded as junior synonyms of *F. xanthonema* by Feltes (1991). Recently, *Polydactylus konadaensis*, from Konada, Andhra Pradesh, India, was also reduced to the synonymy of *F. xanthonema* (see Motomura *et al.*, 2001b).

*Filimanus xanthonema* can be easily distinguished from other congeners by the number and length of pectoral filaments. The species usually has 6 pectoral filaments on each side (occasionally 5 on each side, or asymmetrically 5 and 6 or 6 and 7), not reaching to level with the midpoint of the anal-fin base, whereas *F. hexanema* and *F. perplexa* have 6 and 7 pectoral filaments, respectively, extending beyond the level of the midpoint of the anal-fin base in both species. *Filimanus heptadactyla*, *F. sealei* and *F. similis* have 7, 8 (occasionally 7) and 7 pectoral filaments, respectively, not reaching to level with the midpoint of the anal-fin base.



**Fig. 58** *Filimanus xanthonema*  
■ Known distribution