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SPARIDAE

Spondyliosoma cantharus (Linnaeus, 1758)

by

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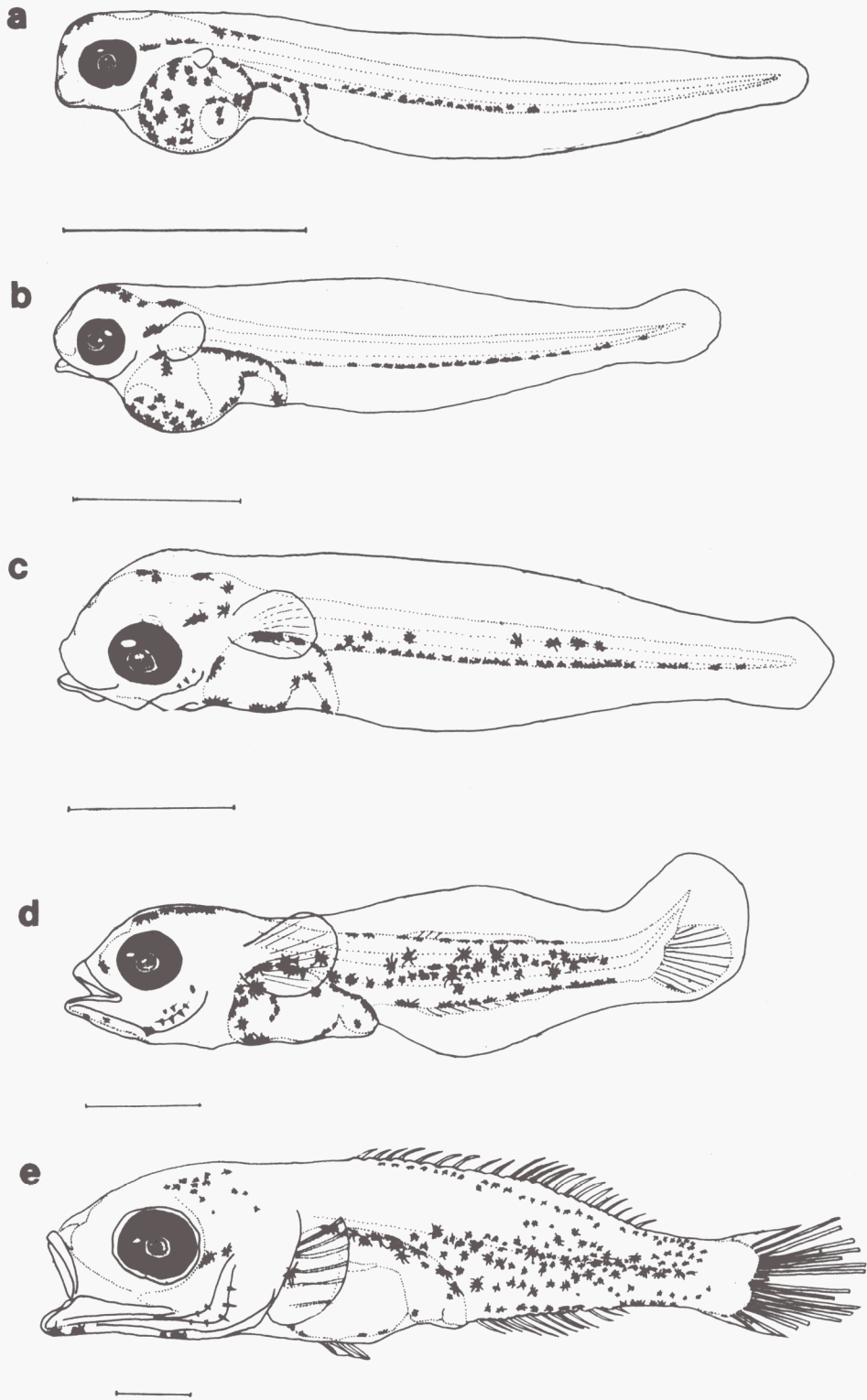


Figure 1. *Spondyliosoma cantharus* (a) 3.2 mm TL, (b) 3.9 mm TL, (c) 4.6 mm TL, (d) 6.0 mm TL, (e) 11.0 mm TL. All reared specimens except (e), which was caught in the western English Channel. All scale marks = 1 mm.

Sparidae

Spondyliosoma cantharus (Linnaeus, 1758)

ADULT MERISTIC FEATURES

Myom.: 24
Vert.: 10+14
D: XI, 11–13
A: III, 9–11
Plv: 1,5
P: 13–15
C: 9+8 (principal rays)
Branchiostegal rays: 6

SPAWNING

Late spring and early summer (April to June)
Bay of Naples – Bay of Biscay – English Channel (nearshore waters)

EGGS

Spherical, *demersal*, adhesive in a single layer, flattened underneath and at the sides where they stick to neighbouring eggs
Diameter: 1–1.2 mm; \bar{x} : 1.09 mm
Shell: smooth
Yolk: unsegmented, pigmented (small scattered melanophores)
Oil globule: single, unpigmented, yellow
Oil globule diameter: 0.20–0.25 mm; \bar{x} : 0.21 mm
Perivitelline space: moderately wide, 0.2 mm

LARVAE

Hatching occurs at about 2 mm NL; eye pigmented and mouth undeveloped
Oil globule pigmented and at posterior end of yolk sac
Preanal length <50 % SL until after flexion
Flexion occurs at about 6.0 mm SL (6.6 mm TL); number of myomeres: 24
Swimbladder with melanophores on the dorsal side visible at pre-flexion and flexion
Fin formation: Caudal rays complete at about 6.5–7.0 mm SL; dorsal and anal spines and rays complete at 7.5–8.0 mm SL; pelvic buds forming at about 7.5–9.0 mm SL, and rays complete at 11.0 mm SL
Small preopercular spines appearing at about 5.0 mm SL (Fig. 1c)

Pigment in early larvae (Figs. 1a, b, c, d)

Ventral row of postanal melanophores

Prominent melanophore anterior to anus on fin fold, becoming less intense at 5.5 mm SL

Ventro-lateral scattered pigments developing at 4.0 mm NL and becoming more numerous with development. Internal row of pigment spots above the notochord appearing at flexion.

Melanophore at lower jaw angle

Medio-lateral postanal melanophore streak appearing at flexion (Fig. 1d) and dorsal row of pigment on caudal peduncle developing just after flexion

Melanophores on mid-brain and a few in the shoulder region

Two groups of ventral pre-anal melanophores present near the throat and anus

Small yellow pigments scattered all over the body, remaining throughout development (on suitably preserved specimens)

Pigment in later larvae (Fig. 1e)

Internal row of pigment spots on each side of notochord

Ventro- and dorso-lateral pigment developing post-anally

Spot at cleithral symphysis and at lower jaw angle

Pigment streak developing anteriorly

Pigments developing at the base of dorsal and anal rays

Numerous melanophores still present on mid-brain and in ventral abdominal region

Teeth appearing at about 10.0 mm SL

Table 1. Larval sizes and relative body proportions (preserved specimens).

	Preflexion		Flexion		Postflexion	
	\bar{x}		\bar{x}		\bar{x}	
Larval size (mm NL or SL)	2.0–6.2	3.9	4.9–8.0	6.1	5.5–12.5	8.2
Preanal length (% NL or SL)	35–49	43	46–55	48	49–59	55
Head length (% NL or SL)	20–31	23	23–29	26	25–32	29
Number of anterior and posterior preopercular spines	0–0 to 0–3		1–3 to 2–4		2–5	

GLOSSARY

Flexion: Upward curvature of urostyle concurrent with development of hypural bones and other caudal-supporting structures

HL (Head length): Straight line measurement from tip of snout to posterior margin of operculum

Myom (Myomeres)

NL (Notochord length): Straight line measurement from tip of snout to the end of notochord

SL (Standard length): Straight line measurement from tip of snout to posterior edge of middle hypural elements

TL (Total length): Straight line measurement from most anterior point to most posterior point of fish

Vert. (Vertebrae): First number indicates precaudal vertebrae and is followed by number of caudal vertebrae.

ORIGIN OF THE MATERIAL

Eggs: Western English Channel and Brittany (rade de Brest)

Larvae: Eastern and Western English Channel. Brittany (Roscoff, Brest). North of Bay of Biscay (Audierne).

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