

# FICHES D'IDENTIFICATION DU ZOOPLANCTON

Editées par

G. A. ROBINSON

Institute for Marine Environmental Research  
Prospect Place, The Hoe, Plymouth PL1 3DH, England

FICHE NO. 166

## NARCOMEDUSAE

**Families: Aeginidae**  
**Solmaridae**  
**Cuninidae**

by

F. S. Russell

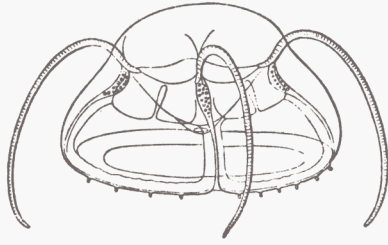
Marine Biological Association  
The Laboratory, Citadel Hill  
Plymouth, Devon PL1 2 PB, England

(This publication may be referred to in the following form:  
Russell, F. S. 1981. Narcomedusae. Fich. Ident. Zooplancton 166: 5 pp.)

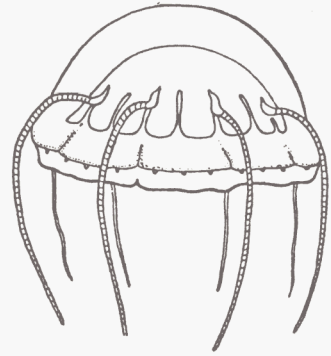
Conseil International pour l'Exploration de la Mer  
Palægade 2-4, DK-1261 Copenhague K, Danemark

NOVEMBRE 1981

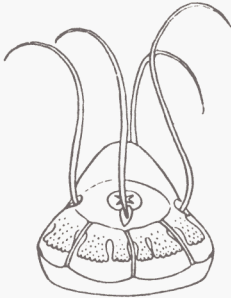
ISSN 0443-9155



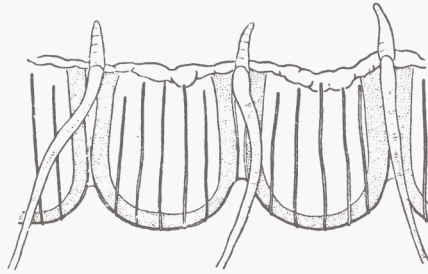
1



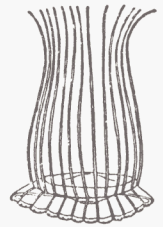
3



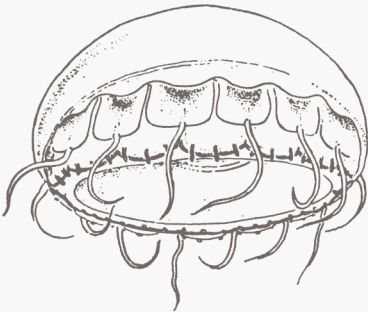
2



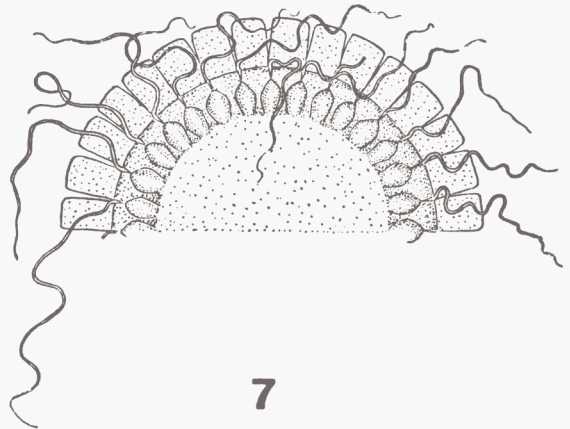
5



4



6



7

1. *Aegina citrea*. – 2. *Aeginopsis laurentii*. – 3. *Aeginura grimaldii*. – 4. *Solmaris corona*. – 5. *Pegantha clara* (marginal lappets). – 6. *Cunina globosa*. – 7. *Solmissus incisa*.

(All from KRAMP, 1959, after various authors).

## Order NARCOMEDUSAE

Hydromedusae with sides of umbrella divided by peronial grooves so that umbrella margin may be lobed; with broad stomach with entire circular periphery or with rectangular peripheral pouches; without radial canals and with or without peripheral canal system; with gonads on stomach walls; with solid primary tentacles leaving umbrella some distance above margin, and sometimes small secondary tentacles on umbrella margin itself; with marginal sense organs as free sensory clubs with endodermal axes, which may or may not have bristled ectodermal tracks known as otoporphae above them.

### Family Aeginidae

Narcomedusae with interradial divided stomach pouches, containing gonads, with or without peripheral canal system; with primary periradial tentacles leaving umbrella between marginal pouches, in number at least half that of stomach pouches; pouches extending beyond points of origin of primary tentacles; with or without secondary tentacles on umbrella margin; sensory clubs with or without otoporphae.

#### Genus *Aegina* Eschscholtz 1829

Aeginidae with typically 8, occasionally 10 or 12, stomach pouches, which may or may not have secondary divisions; with peripheral canal system; with typically 4, occasionally 3, 5, or 6, primary tentacles and same number of peronia; without secondary marginal tentacles; without otoporphae.

##### 1. *Aegina citrea* Eschscholtz 1829

Umbrella hemispherical with thick apical jelly, with 4 peronia. Stomach large circular with typically 8 rectangular pouches, some or all with slight median clefts or notches. Gonads on walls of stomach pouches, sometimes extending onto main body of stomach. Typically 4, often 5 or 6, primary tentacles issuing at upper ends of peronia at level of top of stomach, with root-like endodermal continuations into apical jelly. No secondary tentacles on umbrella margin. Up to ? 100 sensory clubs without otoporphae. Umbrella up to 50 mm in diameter. Yellow, brown, pink, or colourless.

#### Genus *Aeginopsis* Brandt 1835

Aeginidae with 16 stomach pouches; without peripheral canal system; with 4 primary tentacles and 8 peronia; without secondary tentacles on umbrella margin; sensory clubs without otoporphae.

##### 2. *Aeginopsis laurentii* Brandt 1838

Umbrella hemispherical or somewhat conical with thick apical jelly. Stomach broad lenticular, with 16 rectangular pouches, the 8 primary pouches being deeply cleft. Four large primary tentacles issuing from very high level. Eight peronia. Two or three sensory clubs in each octant. Umbrella up to 25 mm wide.

#### Genus *Aeginura* Haeckel 1879

Aeginidae with 16 stomach pouches; peripheral canal system degenerate or absent; with 8 primary tentacles and 8 peronia; with secondary tentacles on umbrella margin; sensory clubs without otoporphae.

##### 3. *Aeginura grimaldii* Maas 1904

Umbrella hemispherical with central part fairly thick; stomach large, circular, with 16 rectangular pouches with indications of slight median clefts; 8 large primary tentacles issuing at level of top of stomach, with peronia running to umbrella margin; 3–5 secondary tentacles on umbrella margin in each octant; one or two sensory clubs between adjacent secondary tentacles; colour of stomach pouches deep chocolate or purplish black; umbrella up to 45 mm wide.

## Family Solmaridae

Narcomedusae without stomach pouches; with gonads developed either as thickenings or diverticula on oral wall of central stomach; with or without peripheral canal system; with numerous tentacles leaving umbrella at level of periphery of stomach; with or without otoporpaes.

### Genus *Solmaris* Haeckel 1879

Solmaridae with simple annular gonad; without peripheral canal system; without otoporpaes.

#### 4. *Solmaris corona* (Keferstein & Ehlers)

Umbrella with up to 35 rectangular marginal lappets, each up to twice as long as broad; up to 35 tentacles; 1–3, rarely 4, sensory clubs on each marginal lappet, each on a large cushion with long bristles; umbrella 12–15 mm wide.

*Note.* *Solmaris multilobata* with 64 or more marginal lappets and tentacles, recorded by Maas (1893) north of the Hebrides in 1889 and not recorded since, may have been a multitentaculate form of *S. corona*.

### Genus *Pegantha* Haeckel 1879

Solmaridae with gonads forming diverticula of the margin of the oral wall of the stomach; with peripheral canal system; with otoporpaes.

#### 5. *Pegantha clara* R. P. Bigelow 1909

Umbrella lenticular with thick smooth jelly, with up to 40 marginal lappets, quadrate or somewhat longer than broad and usually tongue-shaped; peripheral canals fairly narrow, of almost equal width throughout their length; gonads as simple smooth and somewhat crenulated pouches in each lappet radius; most often 3–5 sensory clubs and long linear otoporpaes usually as long as lappets; umbrella up to 50 mm wide and 20 mm high.

## Family Cuninidae

Narcomedusae with perradial undivided stomach pouches, not extending beyond points of origin of tentacles; with or without peripheral canal system; with primary tentacles leaving umbrella opposite centre of each stomach pouch, equal in number to that of stomach pouches; without secondary tentacles on umbrella margin; with or without otoporpaes.

### Genus *Cunina* Eschscholtz 1829

Cuninidae with or without peripheral canal system; without otoporpaes.

#### 6. *Cunina globosa* Eschscholtz 1829

Umbrella conical or almost globular with thick jelly, with short broad marginal lappets; stomach on broad peduncle; 10–14 stomach pouches, wide quadratic with rounded angles, more than twice as wide as septa between them; peripheral canal system well developed; 10–14 primary tentacles arising only short distance above umbrella margin; no ectodermal pads below bases of tentacles; 3 sensory clubs on each marginal lappet; otoporpaes short and oval; umbrella up to 18 mm wide.

### Genus *Solmissus* Haeckel 1879

Cuninidae without peripheral canal system; without otoporpaes.

#### 7. *Solmissus incisa* (Fewkes 1886)

Umbrella flat disc-like with fairly thick smooth jelly with thin flexible margin, with 20–40 marginal lappets about as long as wide; stomach large circular with 20–40 marginal pouches; 20–40 stiff tapering primary tentacles arising at upper ends of peronia separating marginal lappets; 2–5 sensory clubs on each marginal lappet; umbrella up to 100 mm diameter, colourless or ? with red gastric pouches.

### FURTHER INFORMATION ON IDENTIFICATION

1. *Aegina citrea*. MAAS, 1905, p. 71. MAYER, 1910, p. 451. RUSSELL, 1953, p. 461. KRAMP, 1959, p. 194; 1961, p. 266.
2. *Aeginopsis laurentii*. BIGELOW, 1909b, p. 314. HARTLAUB, 1909, p. 472. KRAMP, 1959, p. 195; 1961, p. 268.
3. *Aeginura grimaldii*. MAAS, 1905, p. 77. MAYER, 1910, p. 470. RUSSELL, 1953, p. 472. KRAMP, 1959, p. 195; 1961, p. 269.
4. *Solmaris corona*. MAYER, 1910, p. 437. RUSSELL, 1953, p. 476. KRAMP, 1959, p. 197; 1961, p. 278. RUSSELL, 1970, Pl. Is.
5. *Pegantha clara*. BIGELOW, 1909a, p. 90. MAYER, 1910, p. 445. KRAMP, 1957, p. 73; 1959, p. 198; 1961, p. 272.
6. *Cunina globosa*. BIGELOW, 1909a, p. 57. MAYER, 1910, p. 476. KRAMP, 1959, p. 201; 1961, p. 281.
7. *Solmissis incisa*. BIGELOW, 1909a, p. 67. RUSSELL, 1953, p. 464. KRAMP, 1959, p. 203; 1961, p. 286.

### DISTRIBUTION

All species are oceanic with wide distributions in warm and temperate waters, except *Aeginopsis laurentii*, which is a cold-water species with a circumpolar distribution. *Solmaris corona* is the only species occasionally recorded in shallower waters in the western English Channel and northern North Sea.

*Pegantha clara* is a more southerly species living mainly in upper water layers. *Aeginura grimaldii* is bathypelagic, and *Aegina citrea* may occur at all depths but only at great depths in colder waters.

### REFERENCES

- BIGELOW, H. B. 1909a. Report of the Scientific Results of the Expedition to the Eastern Tropical Pacific by the U.S. Fish Commission Steamer 'Albatross'. XVI. The Medusae. Mem. Mus. comp. Zool. Harv., 37: 1-243, 48 Pls.
- BIGELOW, H. B. 1909b. Coelenterates from Labrador and Newfoundland, collected by Mr Owen Bryant from July to October, 1908. Proc. U.S. Nat. Mus., 1706: 301-320, 2 Pls.
- HARTLAUB, C. 1909. Méduses. Crois. océanogr. Belgica, Mer du Groenland (1905). 1-18, 2 Pls.
- KRAMP, P. L. 1957. Hydromedusae from the Discovery collections, Discovery Rep., 29: 1-128, 7 Pls.
- KRAMP, P. L. 1959. The Hydromedusae of the Atlantic Ocean and adjacent waters. Dana Rep., 46: 1-238, 2 Pls.
- KRAMP, P. L. 1961. Synopsis of the Medusae of the world. J. mar. biol. Ass. U.K., 40: 1-469.
- MAAS, O. 1893. Die Craspedoten Medusen. Ergebn. Plankton Exped. Humboldt-Stiftung, 2, K. c. 1-107.
- MAAS, O. 1905. Die Craspedoten Medusen der Siboga-Expeditie. Monogr. X: 1-85, 14 Pls.
- MAYER, A. G. 1910. Medusae of the world. II, Hydromedusae: 231-498.
- RUSSELL, F. S. 1953. The Medusae of the British Isles. Cambridge Univ. Press., 1-530, 35 Pls.
- RUSSELL, F. S. 1970. The Medusae of the British Isles. II, p. 266, Pl. Is. Cambridge Univ. Press.