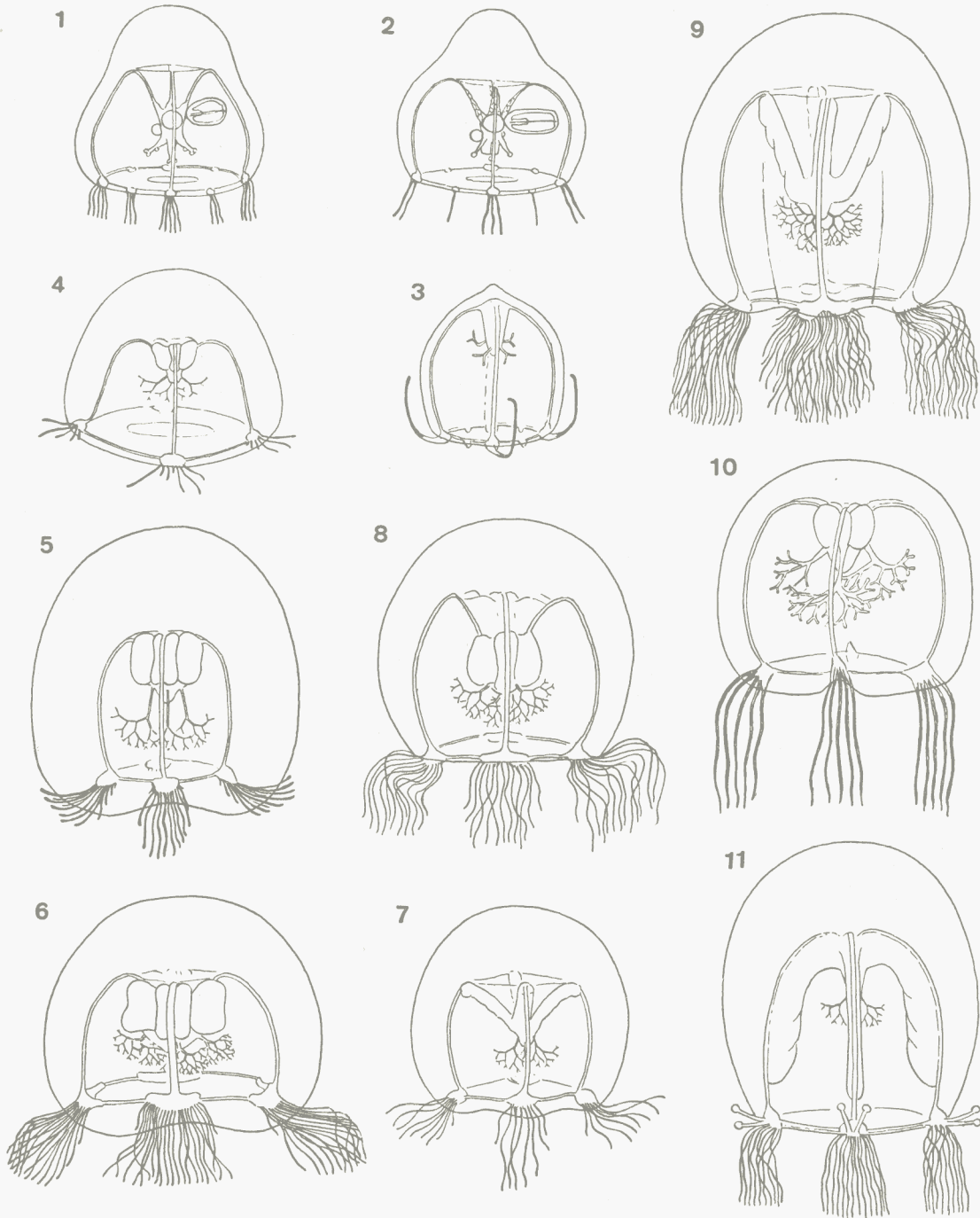


CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER

Zooplankton.
Sheet 51.

HYDROMEDUSAE
ORDER: ANTHOMEDUSAE
Families: Rathkeidae and
Bougainvilliidae
(By F. S. Russell)
1953



- 1. *Rathkea octopunctata.*
- 2. *Lizzia blondina.*
- 3. *Thamnostoma russelli.*
- 4. *Bougainvillia ramosa.*

- 5. *B. britannica.*
- 6. *B. principis.*
- 7. *B. pyramidata.*
- 8. *B. superciliaris.*

- 9. *B. macloviana.*
- 10. *B. nordgaardi.*
- 11. *Nemopsis bachei.*

Idealized drawings to show chief characters.

Family RATHKEIDAE

Mouth with four lips armed with terminal and lateral clusters of nematocysts. Gonads surrounding stomach. Asexual budding from stomach wall. Eight groups of marginal tentacles.

Genus RATHKEA Brandt:

With four radial canals.

1. *Rathkea octopunctata* (M. Sars). Eight marginal tentacular bulbs, four perradial each with five tentacles, four interradial each with three tentacles. Umbrella 3—4 mm. high.

Family BOUGAINVILLIIDAE

Mouth with four or eight unbranched, or four dichotomously branching, oral tentacles inserted above mouth opening. Gonads situated adradially or interradially on, or completely surrounding stomach, or along stomach pouches on radial canals. With or without asexual budding. Two, four, or more marginal tentacles, or four, eight, or sixteen large marginal bulbs each with a group of tentacles of one or two kinds. With or without ocelli.

Sub-family Lizziinae

Four or eight unbranched oral tentacles. Four, eight, or more solitary marginal tentacles, or with eight groups of tentacles. Gonads surrounding stomach. No ocelli.

Genus LIZZIA Forbes:

Marginal tentacles, when grouped, more numerous on perradial bulbs than on interradial bulbs.

2. *Lizzia blondina* Forbes. Four unbranched oral tentacles. Eight marginal tentacular bulbs, four perradial each with one to three tentacles, four interradial each with one tentacle. Gonads surrounding stomach. Asexual budding from stomach wall. Umbrella 2 mm. high.

Sub-family Thamnostominae

Four dichotomously branching oral tentacles. Gonads interradial on stomach. Two, eight, or more solitary marginal tentacles.

Genus THAMNOSTOMA Haeckel:

Eight or more marginal tentacles.

3. *Thamnostoma russelli* Rees. Adult characters not known. Young stage had oral tentacles dichotomously branched once, and four perradial marginal tentacles with four interradial bulbs developing.

Sub-family Bougainvilliinae

Four dichotomously branching oral tentacles. Four, eight or sixteen groups of marginal tentacles of one or two kinds. With or without ocelli.

Genus BOUGAINVILLIA Lesson:

Four groups of marginal tentacles of one kind.

Species	Stomach peduncle	Number of times oral tentacles dichotomize	Number of tentacles on each marginal bulb	Umbrella height mm.	Remarks
4. <i>B. ramosa</i> (Van Beneden)	—	2—3	4—9	2—4	—
5. <i>B. britannica</i> Forbes	—	4—5	12—17	6—8	Basal trunk of oral tentacle long: ocellus elongated
6. <i>B. principis</i> (Steenstrup)	—	5—6	20—30	7—11	Basal trunk of oral tentacle short: ocellus round
7. <i>B. pyramidata</i> (Forbes and Goodsir)	Well developed	3—4	6—9	3—5	Gonads extending along stomach lobes on peduncle
8. <i>B. superciliaris</i> (L. Agassiz)	Well developed	4—5	11—15	7—12	—
9. <i>B. macloviana</i> Lesson	Well developed	5—7	35—65	8—15	Gonads extending along stomach lobes on peduncle
10. <i>B. nordgaardi</i> (Browne)	—	4—5	5—7	4	No ocelli

Genus NEMOPSIS L. Agassiz:

Gonads on stomach pouches extending along radial canals. Four groups of marginal tentacles of two kinds.

11. *Nemopsis bachei* L. Agassiz. Oral tentacles dichotomously branched 5—7 times. Up to fourteen filiform tentacles on each marginal bulb, with a short median pair, each with terminal cluster of nematocysts. Umbrella up to 11 mm. high.

Further Information on Identification

1. *Rathkea octopunctata*: Browne, 1896, p. 477 (as *Margellium*); Hartlaub, 1911, p. 229, Figs. 196—199 (as *R. blumenbachii*); Kramp, 1926, p. 58; Russell, 1953, p. 137, Textfigs. 65—67, Pl. VII, Figs. 3—4.
2. *Lizzia blondina*: Hartlaub, 1911, p. 145, Figs. 131—135; Kramp, 1926, p. 52; Russell, 1953, p. 145, Textfigs. 69—72, Pl. VII, Figs. 1—2.
3. *Thamnostoma russelli*: Rees, 1938, p. 25, Fig. 7; Russell, 1953, p. 150.
4. *Bougainvillia ramosa*: Hartlaub, 1911, p. 183, Figs. 161 (medusa), 162—167; Kramp & Damas, 1925, p. 189; Russell, 1953, p. 153, Textfig. 74, Pl. VIII, Fig. 1, Pl. IX, Figs. 4—5.
5. *B. britannica*: Hartlaub, 1911, p. 162, Figs. 142, 143, 145—9; Russell, 1953, p. 158, Textfigs. 75, 77, 78A, 79A, Pl. VIII, Figs. 2—3, Pl. IX, Figs. 1—3.
6. *B. principis*: Hartlaub, 1911, p. 177, Fig. 158; Kramp, 1926, p. 48; Russell, 1953, p. 164, Textfigs. 76A, 78B, 79B, Pl. VIII, Fig. 4.
7. *B. pyramidata*: Hartlaub, 1911, p. 180, Fig. 159; Russell, 1953, p. 167, Textfig. 82.
8. *B. superciliaris*: L. Agassiz, 1849, p. 273, Pl. I—III (as *Hippocrene*); Hartlaub, 1911, p. 171, Figs. 153—157; Russell, 1953, p. 169, Textfigs. 83, 84, 85A.
9. *B. macloviana*: Hartlaub, 1911, p. 156, Fig. 139; Künne, 1933, p. 249, Fig. 1; Browne & Kramp, 1939, p. 284, Pl. XIV, Fig. 6, Pl. XV, Figs. 7—14; Russell, 1953, p. 173, Textfigs. 86—88.
10. *B. nordgaardi*: Browne, 1903, p. 14, Pl. II, Fig. 1, Pl. III, Figs. 5—6; Hartlaub, 1911, p. 192, Fig. 171, (see also Rees, 1938, p. 5).
11. *Nemopsis bachei*: Hartlaub, 1911, p. 194, Fig. 172.

Distribution	Species
Gulf of Bothnia	—
Gulf of Finland	—
Baltic proper	1, 4, 8
Belt Sea	1, 4, 8
Kattegat	1, 2, 4, 5, 6, 8
Skagerak	1, 2, 4, 5, 6, 8, 10
Northern North Sea	1, 2, 4, 5, 6, 8
Southern North Sea	1, 2, 4, 5, 6, 8, 9, 11
English Channel (eastern)	1, 2, 4, 5
English Channel (western)	1, 2, 4, 5, 6
Bristol Channel and Irish Sea	1, 2, 4, 5, 6, 7
South and West Ireland and Atlantic	1, 2, 4, 5, 6, 7
Faroe Shetland Area	1, 2, 5, 6, 8,
Faroe Iceland Area	1, 2, 6, 8
Norwegian Sea	1, 2, 3, 4, 5, 6, 8, 10
Barents Sea	1, 6, 8

References to Work on Biology

(Numbers after references give species referred to)
 Browne (1896) 1, 2; Kramp (1926) 1, 2, 6, 8,
 (1927) 1, 2, 4, 5, 8, (1930) 8; Kramp & Damas
 (1925) 1; Künne (1933) 9; Russell (1938,
 1953) 5.

References.

Agassiz, L., 1849. Mem. Amer. Acad. Arts Sci., 4 , 9, p. 221.	Kramp, P. L., 1927. K. danske vidensk. Selsk. Skr., nat. math. Afd., 8. Rk., 12 , 1, pp. 1—291.
Browne, E. T., 1896. Proc. zool. Soc. Lond., p. 459.	Kramp, P. L. & Damas, D., 1925. Vidensk. Medd. dansk naturh. Foren. København, 80 , pp. 217—323.
Browne, E. T., 1904. Bergens Mus. Aarb. 1903, 4, pp. 1—36.	Künne, C. I., 1933. Zool. Anz., 101 , pp. 249—254.
Browne, E. T. & Kramp, P. L., 1939. Discovery Rep., 18 , pp. 265—322.	Rees, W. J., 1938. J. Mar. biol. Ass. U.K., 23 , 1, pp. 1—42.
Hartlaub, C. I., 1911. Nordisches Plankton, Zool., 6 , Craspedote Medusen I, pp. 137—235.	Russell, F. S., 1938. J. Mar. biol. Ass. U.K., 22 , 2, pp. 411—439.
Kramp, P. L., 1926. Danish Ingolf-Exped., 5 , 10, pp. 1—102.	Russell, F. S., 1954. <i>The Medusae of the British Isles</i> , pp. 530, Cambridge Univ. Press.