PLATE VIII

Tentacles

- 1. Oneirophanta mutabilis mutabilis. St. 654. Specimen 7.5 cm long. Scale: 1 mm.
- 2. Oneirophanta mutabilis mutabilis. St. 192. Specimen 9 cm long. Scale: 1 mm.
- 3. Oneirophanta mutabilis affinis. St. 716. Specimen 6.5 cm long. Scale: 1 mm.
- 4. Oneirophanta mutabilis affinis. St. 716. Anterior end of the 30 mm long young shown in Pl. XI: 8. Scale: 1 mm.
- 5-6. Orphnurgus glaber. St. 490. Specimen 7.5 cm long. Scale: 1 mm.
 - 7. Orphnurgus glaber. Kei Exp. St. 52. Specimen 15 cm long. Scale: 1 mm.
 - 8. Laetmogone violacea. Michael Sars St. 76. Specimen 7 cm long. Scale: 1 mm.
- 9-10. Laetmogone maculata. Valdivia St. 202. Specimens 7 and 6 cm long, respectively. Scale: 1 mm.
 - 11. Benthogone fragilis. St. 324. Specimen 9 cm long. Scale: 1 mm.



PLATE IX

Tentacles

- 1-2. Benthodytes incerta. St. 716. Specimens 6 and 15 cm long, respectively. Scale: 3 mm.
 - 3. Benthodytes lingua. Ingolf St. 18. Specimen 7 cm long. Scale: 1 mm.
 - 4. Benthodytes lingua. South Africa. Specimen 15 cm long. Scale: 3 mm.
 - Benthodytes lingua. St. 32. Specimen 26 cm long. Scale: 3 mm.
 - 6. Benthodytes sanguinolenta. St. 607. Specimen 20 cm long. Scale: 3 mm.
 - 7. Benthodytes sanguinolenta. St. 495. Specimen 20 cm long. Scale: 3 mm.
 - 8. Kolga hyalina. Godthaab St. 54. Specimen 3.7 cm long. Scale: 3 mm.
 - 9. Scotoplanes globosa. St. 668. Specimen 7.5 cm long. Scale: 3 mm.



















PLATE X

Tentacles

- 1-3. *Peniagone azorica*. St. 658. Three tentacles from a 6.5 cm long specimen. Scale: 2 mm.
 - 4. Peniagone convexa. St. 282. Specimen 6 cm long. Scale: 2 mm.
 - 5. Peniagone convexa. St. 234. Specimen 6 cm long: Scale: 2 mm.
 - 6. Amperima naresi. St. 466. Specimen 4.5 cm long. Scale: 2 mm.
- 7-8. *Peniagone diaphana*. St. 574. A tentacle in external and internal view (specimen not captured). Scale: 4 mm.
 - 9. Achlyonice ecalcarea. Java-South Africa Exp. St. 78. Specimen 4.4 cm long. Scale: 1 mm.
- 10. Ellipinion galatheae. St. 435. Specimen 1.7 cm long. Scale: 1 mm.
- 11–13. *Elpidia glacialis*. *Godthaab* St. 54. Three tentacles from a 3.2 cm long specimen. Scale: 1 mm.



PLATE XI

Gonad morphology and intra-ovarian development

- 1. Deima validum validum. St. 193. Left ovary of an 8 cm long specimen. Scale: 1 cm.
- 2. Oneirophanta mutabilis mutabilis. St. 654. Left ovary of a 6.5 cm long specimen. Scale: 5 mm.
- 3. Oneirophanta mutabilis affinis. St. 716. Testes of a 9 cm long specimen. Scale: 5 mm.
- 4. Oneirophanta mutabilis affinis. St. 716. Anterior end of a 9 cm long specimen, opened to show the young-containing ovarian sacs. The papillae and tubefeet are visible through the ovarian wall. Scale: 1 cm.
- 5-6. Oneirophanta mutabilis affinis. St. 716. A 7.5 mm long young in dorsal and ventral view, from the ovary of a 7.5 cm long specimen. Scale: 5 mm.
 - 7. Oneirophanta mutabilis affinis. St. 716. A 19 mm long young (right side) from the ovary of the 9 cm long specimen shown in Pl. XI: 4. Scale: 1 cm.
 - 8. Oneirophanta mutabilis affinis. St. 716. A 30 mm long young (right side) from the ovary of a 7.5 cm long specimen. Scale: 1 cm.
 - 9. *Laetmogone violacea*. *Michael Sars* St. 76. The complete ovary of a 6.5 cm long specimen, in ventral view. Scale: 1 cm.
 - 10. Same. The complete testis of a 12.5 cm long specimen, in ventral view. Scale: 1 cm.
 - 11. Laetmogone maculata. Valdivia St. 202. The complete ovary of an 8 cm long specimen, in ventral view. Scale: 1 cm.
- 12. Same. The complete testis of a 9 cm long specimen. Scale: 1 cm.



















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PLATE XII

Gonad morphology

- 1. Benthodytes incerta. St. 716. Left ovary of a 16 cm long specimen, in ventral view. Scale: 1 cm.
- 2. Benthodytes lingua. St. 32. Left ovary of a 38 cm long specimen. Scale: 1 cm.
- Benthodytes lingua. St. 32. Left testis of a 29 cm long specimen. Scale: 1 cm.
- 4. Benthodytes sanguinolenta. St. 607. A 16 cm long specimen opened from the dorsal side to show the testes. Scale: 1 cm.
- 5. Benthodytes sanguinolenta. St. 495. The complete ovary of a 20 cm long specimen, in ventral view. Scale: 1 cm.
- 6. Psycheotrephes exigua. St. 234. Left ovary of a 28 cm long specimen, in ventral view. Scale: 1 cm.
- 7. Psychropotes longicauda. St. 235. Right ovary of an 18 cm long specimen, in ventral view. Scale: 1 cm.
- 8. Psychropotes depressa. St. 32. Left ovary of a 9 cm long specimen. Scale: 1 cm.
- 9. Psychropotes belyaevi. St. 235. Left ovary of a 19 cm long specimen. Scale: 1 cm.
- 10. *Elpidia glacialis. Godthaab* St. 54. Ovary of a 4.0 cm long specimen. Scale: 3 mm.
- 11. Kolga hyalina. Godthaab St. 54. Testes of a 3.3 cm long specimen. Scale: 5 mm.





















PLATE XIII

Gonad histology

Sections: 8 µ. Ehrlich's hematoxylin – eosin.

- 1. Deima validum. St. 234. Ovary of an 11 cm long specimen in the post-spawning phase. The few eggs remaining are invaded by phagocytes. Remnants of the reticular tissue present in the lumen of the ovary. Scale: 300μ .
- 2. Detail of 1, showing an egg invaded by phagocytes. Scale: 100μ .
- 3. Oneirophanta mutabilis mutabilis. St. 192. Ovary of an 8 cm long specimen, with some phagocytosis of the smaller eggs. A group of phagocytes (arrow) from a disintegrated egg passes gradually into the reticular tissue of the ovarian lumen. Large eggs without phagocytosis. Scale: 1000 μ .
- 4. Oneirophanta mutabilis affinis. St. 716. Ovary of a 9 cm long specimen in the post-spawning phase. Proliferations of vacuolated, nutritive tissue grow out from the ovarian wall. In the uppermost part of the photograph a proliferation is extending over a part of ovarian wall with no proliferations. A small (below) and a large egg are seen, the large one invaded by phagocytes. Scale: 300μ .
- 5. Detail of 4, showing the vacuolated tissue and the large egg invaded by phagocytes. Scale: 100μ .
- 6. Oneirophanta mutabilis affinis. St. 716. Ovary of the 7 cm long specimen with the smallest (7–8 mm) young. The proliferations of vacuolated tissue have to some degree collapsed. A small and a large egg are seen in the photograph, none of them invaded by phagocytes. Scale: 100μ .
- 7. Same. Ovary of the 8.5 cm long specimen with larger (16–19 mm) young. The proliferations of vacualated tissue have almost completely collapsed. The single egg seen in the photograph is invaded by phagocytes. Scale: 50μ .
- 8. Same. Testis of a 9 cm long specimen. Scale: 50 µ.
- 9. Detail of 8, showing spermatozoa ingested by phagocytes. Scale: 25μ .



PLATE XIV

Gonad histology

- Psychropotes depressa. St. 32. Cross-section of ovary from a 9 cm long specimen. The eggs are embedded in the highly developed vacuolated, nutritive tissue. Section: 8 μ. Ehrlich's hematoxylin – eosin. Scale: 1000 μ.
- 2. Detail of 1, showing an egg invaded (and partly surrounded) by phagocytes. Scale: 300μ .
- Psychropotes belyaevi. St. 235. Cross-section of ovary from an 18 cm long specimen. The eggs are concentrated in the central part of the ovary. The peripheral part of the ovary consists exclusively of the vacuolated, nutritive tissue. Section: 8 μ. Tetrachrome. Scale: 3000 μ.
- 4. Detail of 3, showing the vacuolated, nutritive tissue and the scattered granular phagocytes. Scale: 300μ .
- 5. Detail of 4, showing the large vacuoli of the nutritive cells and the eosinophilic granules of the phagocytes. Scale: 50μ .

