

MEDDELELSER OM GRØNLAND

UDGIVNE AF

KOMMISSIONEN FOR VIDENSKABELIGE UNDERSØGELSER I GRØNLAND

Bd. 104 · Nr. 15.

THE SCORESBY SOUND COMMITTEE'S 2ND EAST GREENLAND
EXPEDITION IN 1932 TO KING CHRISTIAN IX'S LAND

LEADER: EJNAR MIKKELSEN

CRUSTACEA AND PYCNOGONIDA

BY

K. STEPHENSEN

WITH 1 PLATE

KØBENHAVN

C. A. REITZELS FORLAG

BIANCO LUNOS BOGTRYKKERI A/S

1933

On the 2nd East-Greenland Expedition of the Scoresby Sound Committee, 1932, the zoologist of the expedition, Mr. M. Degerbøl, collected some Crustacea and Pycnogonida in the neighbourhood of the coast between Cape Dalton and Angmagsalik, particularly in the fjord Kangerdlugsuak about mid-way between these two points.

The material comprises in all 40 species, viz., 36 Crustacea and 4 Pycnogonida.

Most of the species are well known E. Greenland species, and the main interest connected with the material is a merely geographical one, as the coast between Angmagsalik and the Scoresby Sound was previously quite unknown from a zoogeographical point of view. Two species, the parasitic Copepod *Aphanodomus terebellæ* and the Pycnogonid *Pseudopallene circularis*, are new to E. Greenland.

Also the find of a great many of Euphausiids in a seal stomach is most interesting (see p. 12).

LIST OF LOCALITIES

(see also the map).

- Angmagssalik abt. 66° N, 38° W.
Cape Parclay 69°15' N, 24°20' W.
— Dalton 60°25' N, 24°20' W.
— Johnstrup, close E. of Cape Ravn.
— Ravn abt. 68°30' N, 28°15' W.
— Stephensen, close W. of Cape Ravn.
d'Aunay Bay abt. 69°00' N, 25°30' W.
Kangerdlugsuak abt. 68°00'—68°40' N, 32° W.
Mikis Fjord abt. 68°10' N, 31°30' W.
Ravns Fjord, close E of Cape Ravn.
Søkongens Bugt (near Cape Daussy)
abt. 68°45' N, 26°30' W.
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Crustacea.

DECAPODA.

Caridea.

1. *Sclerocrangon boreas* (Phipps). — H. J. Hansen 1908, p. 47. K. Stephensen 1913, p. 12. Hofsten 1916, p. 43, with map.

Angmagssalik 20 m, 1 spec. — Kangerdlugsuak st. 3, 20 m, 1 spec., and st. 18, 10 m, sand, 1 spec.

A common Greenland littoral species; hitherto known from E. Greenland abt. 66° — 77° N.

2. *Nectocrangon lar* (Owen). — H. J. Hansen 1908, p. 49. K. Stephensen 1913, p. 15.

Kangerdlugsuak st. 14, 50 m, 1 spec.

A common Greenland littoral species; hitherto known from E. Greenland abt. 66° — 77° N.

3. *Sabinea septemcarinata* (Sabine). — H. J. Hansen 1908, p. 52. K. Stephensen 1913, p. 18. Hofsten 1916, p. 50, with map.

Kangerdlugsuak st. 2, 100 m wire, gravel, 1 spec., and st. 13, 10—35 m, stony bottom, 1 spec.

A fairly common Greenland species, depths 9—450 m; from E. Greenland hitherto known abt. $69\frac{3}{4}^{\circ}$ — 78° N.

4. *Spirontocaris gaimardi* (H. Milne-Edwards). — H. J. Hansen 1908, p. 56. K. Stephensen 1913, p. 23. Hofsten 1916, p. 29, with map.

Angmagssalik 20 m, 5 spec. — Kangerdlugsuak st. 27, 25 m, 3 spec. ♀ ovig. were taken 18-VIII.

A common Greenland species, littoral and deeper down. From E. Greenland hitherto known abt. 66° — $77\frac{1}{2}^{\circ}$ N.

5. *Spirontocaris spinus* (Sowerby). — H. J. Hansen 1908, p. 58. K. Stephensen 1913, p. 25. Hofsten 1916, p. 4, with map.

Angmagssalik 20 m, 1 spec. — Kangerdlugsuak st. 2, 100 m wire, gravel, abt. 10 spec.; ibid. st. 13, 10—25 m, stony bottom, 1 spec., and st. 27, 25 m, 1 spec.

♀ ovig. were secured 10-VIII and 8-IX.

A very common W. Greenland species; recorded from a few places off E. Greenland abt. 66°—78° N.

6. *Spirontocaris polaris* (Sabine). — H. J. Hansen 1908, p. 63. K. Stephensen 1913, p. 30. Hofsten 1916, p. 16, with map.

Angmagssalik 20 m, 3 spec. — Kangerdlugsuak st. 2, gravel, 100 m. wire, 5 spec.; st. 3, 70 m, stony bottom, 4 spec.; st. 4, 8 m, stony bottom, 1 spec.; st. 6, 25 m, 2 spec.; st. 8, 10 m, 1 spec.; st. 13, 10—25 m, stony bottom, 1 spec.; st. 22, 5 m, 1 spec.; st. 23, 15 m, 1 spec.; Kangerdlugsuak, without st.-no., 175 m, muddy clay, 1 spec. — Mikis Fjord 175 m, clay, 1 spec.

A single specimen, a large ovigerous ♀, was found in the Ravns Fjord between Cape Ravn and Cape Johnstrup, lost by an *Uria grylle* near its nest.

♀ with eggs were taken 11. and 18.-VIII.

A common Greenland littoral species; recorded from numerous places off E. Greenland abt. 65°—78° N.

7. *Spirontocaris groenlandica* (J. C. Fabricius). — H. J. Hansen 1908, p. 64. K. Stephensen 1913, p. 34. Hofsten 1916, p. 93, with map.

Angmagssalik 20 m, 1 spec. — Kangerdlugsuak st. 2, gravel, 100 m wire, 1 spec.; st. 3, 70 m, stony bottom, 2 spec.; st. 14, 50 m, 1 spec.; st. 15, 35 m, 1 spec.

A common Greenland littoral species; recorded from numerous places off E. Greenland abt. 65½°—78° N.

8. *Pandalus borealis* Krøyer. — H. J. Hansen 1908, p. 70. K. Stephensen 1913, p. 40. Hofsten 1916, p. 37, with maps.

Mikis Fjord, 175 m, clay, 1 spec.

Off W. Greenland it has been found from abt. 60° to abt. 71° N.; in several places it is extremely abundant. Off E. Greenland it was hitherto found in only two places, viz., abt. 65° N., abt. 375 m, and abt. 65½° N., abt. 260 m; the new locality, Mikis Fjord, is much farther to the North, viz., abt. 68°5' N, 31°10' W.

EUPHAUSIACEA.

9. ? *Meganyctiphanes norvegica* (M. Sars). — Zimmer 1909, p. 8. K. Stephensen 1913, p. 55.

Kangerdlugsuak. A much damaged specimen, probably of this

species, was found in the stomach of a seal (*Phoca groenlandica*), together with numerous large specimens of *Rhoda inermis*.

An Atlantic species, found a few times off W. and E. Greenland (E. Greenland up to $74\frac{1}{2}^{\circ}$ N.).

10. *Rhoda inermis* (Kröyer) (incl. *Thysanoëssa neglecta* (Kröyer)). — Zimmer 1909, p. 11 and 19. H. J. Hansen, Bull. Inst. Océanogr. Monaco, no. 210, 1911, p. 8—13, 38. K. Stephensen 1913, p. 56.

Kangerdlugsuak, stramin-net, surf., a few spec. — 3 nautical miles off Cape Stephensen, vertical haul, Hansen-net, a few spec. — Ravns Fjord (between Cape Ravn and Cape Johnstrup), stramin-net, 200 m wire, numerous spec.

The stomach of a seal (*Phoca groenlandica*) from Kangerdlugsuak contained numerous newly eaten specimens of this species.

Very common and widely distributed in the N. Atlantic with adjacent waters; found in numerous places off E. Greenland abt. 69° — 78° N.

11. *Thysanoëssa longicaudata* (Kröyer). — Zimmer 1909, p. 20. K. Stephensen 1913, p. 57.

3 nautical miles off Cape Stephensen, Hensen-net, a few spec. — Ravns Fjord, Hensen-net, 100 m wire, a few spec.

Rather common in Greenland waters and found in several places off E. Greenland up to abt. 78° N.

AMPHIPODA.

1. Gammaridea.

12. *Pseudalibrotus nanseni* G. O. Sars. — K. Stephensen 1923, p. 58, with map.

Ravns Fjord between Cape Ravn and Cape Johnstrup, Hensen-net 200 m wire, a few spec. — d'Aunay Bay, stramin-net, surf., a few spec.

An arctic pelagic surface species, hitherto not known from E. Greenland S. of $70^{\circ}27'$ N.

13. *Pseudalibrotus glacialis* G. O. Sars. — K. Stephensen 1923, p. 58, with map.

Off Cape Stephensen, abt. 10 miles from the shore, surf., in an opening in the ice. 1 spec.

An arctic pelagic surface species, hitherto probably not known from E. Greenland S. of abt. 74° N.

14. *Socarnes bidenticulatus* Bate. — K. Stephensen 1923, p. 87, with map.

Kangerdlugsuak, st. 2, 100 m wire, gravel, 2 spec.; st. 3, 70 m, stony bottom, 1 spec.; st. 8, 10 m, 1 spec.; st. 13, 10—25 m, stony bottom, 1 spec.; st. 14, 50 m, 1 spec.; st. 26, 11—15 m, 1 spec.; st. 27, 25 m, 2 spec.

Ovigerous ♀ were found 11. and 18.-VIII.

A fairly common Greenland species, recorded also from a few places off E. Greenland.

15. *Stegocephalus inflatus* Kröyer. — K. Stephensen 1925, p. 129, with map.

Kangerdlugsuak, st. 2, 100 m wire, 5 spec., and st. 3, 70 m, stony bottom, 1 spec.

A common Greenland species, found in much varying depths; known also from several places off E. Greenland, but was hitherto not recorded from between abt. 66° and 70° N.

16. *Pardalisca abyssi* Boeck. — K. Stephensen 1931, p. 214, with map.

Kangerdlugsuak, st. 2, gravel, 100 m wire, 1 spec.

Found in the N. Atlantic and in the adjacent arctic waters, 160—1505 m; hitherto only recorded from 2 places off E. Greenland abt. 75½°—76¾° N.

17. *Paroedicerus lynceus* (M. Sars). — K. Stephensen 1931, p. 230, with map.

Ravns Fjord between Cape Ravn and Cape Johnstrup, 10 m, 3 spec.

A common Greenland littoral species, also found in some places off E. Greenland, but was not hitherto known from the coast between abt. 66° and 70° N.

18. *Acanthostepheia malmgreni* (Goës). — K. Stephensen 1931, p. 238, with map.

Kangerdlugsuak, st. 18, 10 m, sandy bottom, 1 spec.

An arctic, mainly littoral species, found in a few places off W. Greenland, and off E. Greenland from 69°25' N. and northwards.

19. *Syrrhoë crenulata* Goës. — K. Stephensen 1931, p. 257, with map.

Ravns Fjord between Cape Ravn and Cape Johnstrup, 10 m, 3 spec.

Known from W. Greenland, several places 60°—70° N., in the littoral zone, and from E. Greenland abt. 66° N. and some places abt. 70°—77° N.

20. *Halirages fulvocinctus* (M. Sars). — K. Stephensen 1931, p. 264, with map.

Kangerdlugsuak st. 15, 35 m, 1 spec., and st. 19, 10—20 m, 1 spec.

A very common Greenland littoral form, known from W. Greenland abt. 60°—82° N., and from E. Greenland abt. 66°—78° N., but was not known from the coast between abt. 67°—70° N.

21. *Apherusa sarsi* Shoemaker (= *A. megalops* G. O. Sars). — K. Stephensen 1931, p. 275.

Ravns Fjord, 10 m, abt. 10 spec.

Previously known from a few places off E. Greenland (not W. Greenland).

22. *Apherusa glacialis* (H. J. Hansen). — K. Stephensen 1931, p. 277, with map.

Found in d'Aunay Bay, stramin-net, surface, a few spec.

A common arctic pelagic surface species, hitherto not found off E. Greenland S. of Scoresby Sound.

23. *Atylus carinatus* (J. C. Fabricius). — K. Stephensen 1913, p. 171.

Kangerdlugsuak st. 18, 10 m, sandy bottom, 1 spec., and st. 19, 10—20 m, 6 spec.

A fairly common Greenland littoral species; from E. Greenland hitherto recorded from some places abt. 70°—78° N.

24. *Gammarellus homari* (J. C. Fabricius). — K. Stephensen 1913, p. 198 (*Amathilla h.*).

Ravns Fjord between Cape Ravn and Cape Johnstrup, 10 m, 1 spec.

A fairly common Greenland littoral species, hitherto known from E. Greenland from a few places abt. 74½°—78° N.

25. *Gammarus locusta* (L.). — K. Stephensen 1913, p. 192.

Angmagssalik 20 m, 4 spec. — Kangerdlugsuak, st. 19, 10—20 m, 1 spec. — Ravns Fjord between Cape Ravn and Cape Johnstrup, 10 m, 1 spec. — Søkongens Bugt, on the beach, 4 spec., and in a fresh-water lagoon on the beach, 1 spec. — Between Cape Barclay and Cape Dalton, in the stomach of an *Uria grylle*, 1 large spec. — d'Aunay Bay, a few spec.

A widely distributed species, also found in several places off E. Greenland, but was hitherto not recorded from between abt. 66° and 70° N.

2. Hyperiidea.

26. *Themisto libellula* (Mandt). — K. Stephensen 1923, p. 24, with map.

Kangerdlugsuak, 125 m, 2 spec., and behind the 2. dead glacier, 450 m wire, 2 spec. — Ravns Fjord, surface, 100 m from the mouth of

the river, 10 spec. — There are also several specimens in the pelagic samples (see p. 11).

A common arctic pelagic surface species.

27. *Themisto gaudichaudi* Guérin (f. *compressa* Goës). — K. Stephensen 1923, p. 27, with map (*T. compressa*).

Angmagssalik, stramin-net 100 m wire, numerous spec.

1 spec. in *Catablema vesicarium*.

An almost cosmopolitan pelagic species, rarely found in arctic waters.

ISOPODA.

28. *Janira tricornis* (Kröyer). — H. J. Hansen 1916, p. 17.

Kangerdlugsuak, st. 3, 70 m, stones, 1 spec.

Fairly common along the W. Greenland coast; from E. Greenland it was hitherto only recorded from 65°37' N., 30—60 m.

29. *Bopyroides hippolytes* (Kröyer). — H. J. Hansen 1916, p. 203.

Angmagssalik, 20 m, 1 spec. — Kangerdlugsuak, st. 23, 15 m, 1 spec. — The specimens were infesting *Spirontocaris polaris*.

A rather common Greenland species, recorded from E. Greenland from some places abt. 70½°—77½° N.

MYSIDACEA.

30. *Boreomysis arctica* (Kröyer). — Zimmer 1909, p. 53. K. Stephensen 1913, p. 67.

Kangerdlugsuak, behind 2. dead glacier, 450 m wire, 1 spec.

A more southern species, rare in arctic waters. From E. Greenland it was hitherto only recorded from a few places abt. 76½°—78° N., 5—475 m.

31. *Mysis oculata* (O. Fabricius). — Zimmer 1909, p. 160. K. Stephensen 1913, p. 77.

?Kangerdlugsuak st. 2, gravel, 100 m wire, 1 spec. (defective; determination not certain). Mikis Fjord, in shoals near the shore.

A common Greenland (and arctic) littoral species, very frequent also along the E. Greenland coasts, but hitherto not recorded from between abt. 66½° and 70½° N.

COPEPODA.

32. *Calanus finmarchicus* (Gunnerus). — C. With 1915, p. 10.

Very frequent in the pelagic samples, see p. 11.

A species common in the arctic seas.

33. *Euchæte norvegica* Boeck. — C. With 1915, p. 158.

Kangerdlugsuak, 250 m wire, a few spec.

A common arctic species.

34. *Euchæte glacialis* H. J. Hansen. — C. With 1915, p. 169.

Found in a few of the pelagic samples (see p. 11).

A species typic of the Polar basin.

35. *Caligus* sp.

Angmagssalik, on cod, and free-living in a depth of 20 m, some specimens.

36. *Aphanodomus terebellæ* (Levinson). — *Crypsidomus terebellæ* Levinson, Vid. Medd. Naturh. Foren. Kjøbenhavn, 1877, p. 375, figs. — *C. t.* H. J. Hansen, The Danish Ingolf-Exped., vol. III, pt. 7, 1923, p. 83.

The generic name *Crypsidomus* (preoccupied by Günther 1864 for a genus of reptiles) was by C. B. Wilson 1924 (Proc. U. S. Nat. Mus., vol. 64, art. 17, p. 15) altered into *Aphanodomus*.

Kangerdlugsuak, st. 21, 40—50 m, 18.-VIII-1932. A single specimen (with only one ovisac preserved), infesting *Nicolea zostericola*.

The species is known from several places in W. Greenland waters, abt. 61°—73° N., but is new to E. Greenland. Previously it has been found off Maine, and in the Kara Sea abt. 100 m.

Pycnogonida.

37. *Nymphon strömi* Krøyer. — K. Stephensen 1933, p. 16.

Kangerdlugsuak, behind 2. dead glacier, 450 m wire, 1 spec., being an intermediate form between the typic *N. strömi* (the palps) and *N. gracilipes* Heller (the tarsal joints).

A widely distributed species, hitherto not recorded from E. Greenland S. of 69°25' N.

38. *Chætonymphon hirtipes* Bell. — K. Stephensen 1933, p. 8, with map.

Kangerdlugsuak, st. 2, 100 m wire, gravel, some spec.; st. 3, 70 m, stony bottom, 3 spec.; st. 21, 40—50 m, a few spec., also ovig. (the date is 18.-VIII).

The species which has been confused with other species, is arctic and has probably been found in several places off E. Greenland abt. 66°—78° N.

39. *Boreonymphon robustum* (Bell). — K. Stephensen 1933, p. 4, with map.

Pelagic samples.

Locality	*) Rh. i.	Th. lib.	Euch. glac.	Cal. fin.	Cal. jun.	Other species
Angmagssalik, 8-IX-1928. Hensen-net, 40 m wire, 7 min.	..	..	..	r	ccc	
Kangerdlugsuak, 11-VIII-1928. Surface, stramin-net, 40 min.	r	+	..	c	..	
ibid., 20-VIII-1928. 225 m wire.	..	..	..	cc	..	
ibid., Nordfjord, 20-VIII-1928. Stramin-net, 250 m wire, 30 min.	..	..	rr	cc	..	{ Euchæta norve- gica rr
3 nautical miles off Cape Stephensen, vertical haul (about 200 m wire), stramin-net, 22-VII-1928. Surf. temp. 1°	..	..	r	+	..	
ibid., vertical haul, Hensen-net, 22-VII-1928. Surf. temp. 1°	r	r	rr	cc	cc	{ Thysanoëssa longicaudata rr
Ravns Fjord, between Cape Ravn and Cape Johnstrup, 28-VII-1928. Stramin-net, 200 m wire, 10 min.	cc	+	..	+	..	
ibid., 28-VII-1928. Hensen-net, surf. Surf. temp. 3.5°	..	..	..	+	cc	
ibid., 29-VII-1928. Hensen-net, 100 m wire. 10 min.	..	..	..	cc	..	{ Thysanoëssa longicaudata rr
ibid., 29-VII-1928. Hensen-net, 200 m wire.	..	..	..	r	..	
d'Aunay Bay, 16-VII-1928. Hensen-net. Surface. The water brown, like coffee (from the glaciers). Temp. 6.5°. 15 min.	..	r	..	+	ccc	{ Pseudalibrotus nanseni rr
ibid., 16-VII-1928. Stramin-net. Surface. Surf.-temp. 6.3°	..	..	..	..	..	
Barclay Bay, 14-VII-1928. Hensen-net, Surface. Surf. temp. 2.5°	..	rr	..	+	cc	{ Apherusa glacialis rr Gammarus locusta rr Pseudalibrotus nanseni rr

*) Abbreviations: Rh.i. = Rhoda inermis. Th.lib. = Themisto libellula. Euch. glac. = Euchæte glacialis. Cal. fin. = Calanus finmarchicus. Cal. jun. = Calanidæ jun.

Ravns Fjord between Cape Ravn and Cape Johnstrup, found dead on the beach, 1 large specimen. It is very defective, but the determination is certain (f. i. the chelæ are well preserved).

A common arctic species, found in several places off E. Greenland, but was hitherto not known between 66°18' and abt. 70° N.

40. *Pseudopallene circularis* (Goodsir). — K. Stephensen 1933, p. 20.

Kangerdlugsuak, st. 8, 10 m, 1 ovig. It is new to E. Greenland.

A widely distributed littoral species, arctic etc., found in some places off W. Greenland.

On Crustacea in stomachs of seals.

Sometimes Crustaceans have been found in stomachs of seals; but the records previously known were few, and the finds seem to be quite accidental.

The large Hyperid *Themisto libellula* has been recorded as found in single specimens from *Cystophora* and *Phoca foetida* from E. Greenland waters (K. Stephensen 1923, p. 26), and the same applies to the Gammarids *Apherusa glacialis* and *Gammarus locusta* from *Phoca foetida* (K. Stephensen, Meddel. om Grönland, vol. 45, 1912, p. 537 and p. 542).

In the present paper (p. 6) is recorded the find of a great many of the Euphausiid *Rhoda inermis* (and of a single ?*Meganyctiphanes norvegica*) in the stomach of *Phoca groenlandica*. Though the appendages are broken, the specimens are so well preserved, that they must have been eaten just before the seal was killed; they cannot have been in the stomachs of eaten fishes, for partly there were no remains of fishes, and partly they were too well preserved, not at all digested.

As far as I know we have here for the first time Euphausiids found in great multitudes in stomachs of seals. Off Norway *Rhoda inermis* is the food of the fin-whales in Jan.-Feb. (in April the food is *Calanus finmarchicus*, in May-Aug. it is *Meganyctiphanes norvegicus*) (J. T. Ruud: On the Biology of Southern Euphausiidae; — Hvalrådets Skrifter, no. 2, Oslo 1932, p. 96).

List of Literature.

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 — 1925: Crust. Malac. VI (Amphip. II). — Ibid., vol. 3, pt. 9.
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 — 1933: Pycnogonida [Godthaab-Exped.]. — Meddel. om Grönland, vol. 79, no. 6.
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