

INTERNATIONAL POLAR EXPEDITION.

REPORT

ON THE

PROCEEDINGS OF THE UNITED STATES EXPEDITION

TO

LADY FRANKLIN BAY, GRINNELL LAND,

BY

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(III)

MEDUSÆ.

APPENDIX No. 132.

By J. WALTER FEWKES.

The following report* is based on notes and sketches of Medusæ made by members of the expedition. No specimens were examined, and in some cases it has been impossible for me to determine the character of the jelly-fishes collected. A comparison with notes on other Medusæ known to inhabit these regions has led me to hazard a conjecture in regard to genera observed by the members of the expedition. The majority of the animals here mentioned were found by Lieutenant Greely in Discovery Harbor, latitude 81° 44' N., longitude 64° 45' W. It was my intention to have made this final report a monograph of Arctic jelly-fishes. This work, very much needed, I have been unable to prepare, but have added to the account of Medusæ here presented a few of the common jelly-fishes known to inhabit the high latitude of the Arctic.

ACRASPEDA.

The waters of the Arctic are inhabited by several genera of jelly-fishes destitute of a velum, many of which are found as far south as the coast of New England. Of these may be mentioned the following:

Cyanea Postelsii, Brandt; *Cyanea arctica*, Per. et Les.; *Aurelia flavidula*, Per. et Les.; *Aurelia labiata*, Cham. et Eysen; *Periphylla hyacinthina*, Steen.; *Callinema ornata*, Verr.; *Nauphanta polaris*, Fewkes; ? *Pelagia denticulata*, Brandt?; *Chrysaora melanaster*, Brandt; *Chrysaora heptena*, Per. et Les.†

Cyanea arctica, Per. et Les.

This large and beautiful medusa has been recorded from several localities on the west coast of Greenland, and is found all along the coast of New England. In the Bay of Fundy specimens of this medusa are very large and abundant. Those from south of Cape Cod are smaller and less abundant. The species is probably cold water in its habitat, as the name implies. *C. Postelsii* is confined to the vicinity of Alaska.

Aurelia flavidula, Per. et Les.

A common Arctic medusa which reaches large dimensions in colder waters. Sparingly represented south of Cape Cod. Abundant in the Bay of Fundy and Massachusetts Bay. *Aurelia labiata*, Cham. et Eysen. Also occurs in the Arctic.

‡ *Periphylla hyacinthina*, Steen.

This genus and species found in the Gulf Stream is also found in the Arctic. It has never been recorded from the coast of New England although collected on Georges Bank.

* A preliminary report on the Medusæ collected by the expedition has been published by Lieutenant Greely in Appendix XI, of Three Years of Arctic Service.

† This medusa is mentioned in A. Agassiz' list of Greenland Medusæ. *Chrysaora* is regarded by him as a synonym of *Dactylometra*.

‡ The generic name, *Carybdea*, used in the Arctic Manual and elsewhere to designate this medusa, belongs to a very different jelly-fish which has never been recorded from the Arctic.

Callinema ornata, Verr.

This genus and species occurs in the cold waters of the Bay of Fundy and probably belongs to the Arctic fauna. It has been recorded only from Eastport, Me. The genus is referred by Hæckel to Phacellophora, to which it may belong, although it differs from the species of this genus yet described, and must retain the specific name *ornata*. *P. Camtschatica*, Brandt, also occurs in the Arctic.

Nauphanta polaris, Fewkes.

The genus *Nauphanta* differs from *Periphylla*, with which it would at first sight be confounded, by the possession of eight sense-bodies and eight tentacles, while *Periphylla* has four sense-bodies and twelve tentacles, three tentacles alternating with each pair of sense-bodies. It is possible that the medusa referred to *Periphylla* and that referred to *Nauphanta* are the same, but the sketch made by Sergeant Gardiner and the accompanying notes leave no doubt that the species observed by the Lady Franklin Bay party has eight tentacles. I copy from my original description of *N. polaris* the following account:

Two good drawings of a medusa with characters of the genus *Nauphanta* were made by Sergeant Gardiner. The jelly-fish from which they were drawn probably belongs to a new species, for which the name *Nauphanta polaris* is suggested. The genus *Nauphanta* was collected by the *Challenger* in the Southern Atlantic in March, 1876, at a great depth below the surface. It was first described by Hæckel ("Report on the Deep Sea Medusæ dredged by H. M. S. *Challenger*, during the years 1873-'76," Part I, by Ernst Hæckel; "Report on the Scientific Results of the Voyage of H. M. S. *Challenger*, during the years 1873-'76, Zoology," vol. iv, No. II, p. 102), and has not been recorded since its discovery up to the present. Hæckel's account is based on two specimens, both of which he ascribes to the deep sea, and places in a single species, *challengeri*. It is a remarkable fact in the geographical distribution of this genus that a second species, or that described in this report, not only lives in northern latitudes but at or very near the surface of the ocean.* From the notes I learn that the medusa was captured on April 25.

The genus *Nauphanta* is a characteristic one, and is remarkable in the peculiar sculpturing of the exumbrella, the division of the umbrella on the exumbrellal side into a central and coronal or peripheral zone, and the possession of eight tentacles alternating with the same number of sense-bodies.

Nauphanta polaris sp. nov.

The umbrella, when observed laterally in profile, is seen to be irregularly conical, hat-shaped, with inflated crown. The diameter of the largest specimen is 1.9 inches [48.26^{mm}]; that of the smallest a quarter of an inch [6.35^{mm}]. Color, "maroon, semi-transparent, the central part of the specimens appearing almost black."

The umbrella is superficially divided into two zones, as can be seen either from the exumbrella or laterally. The central zone (Fig. 2, *dis. cent.*) is called the zona centralis; the marginal, the zona coronalis or corona. The central zone forms the crown of the hat-shaped umbrella, or its apical region, and is separated from the corona by a ditch called the fossa coronalis (Fig. 2, *foss. cor.*). The zona centralis is nearly spherical, slightly constricted near the apex, and has an opaque interior. The corona (*cor.*) forms that part of the umbrella which is placed abaxially to the coronal fossa, by which it is separated from the central zone. Its surface is inclined at an angle of forty-five degrees to the axis of the medusa. It has an annular contour. It bears on its peripheral border the tentacles (*ta.*), sense-bodies (*sb.*), and marginal lappets (*mg. lp.*), known also as patagia.

When seen either from the exumbrella or in profile laterally (Fig. 2), the corona is seen to be crossed by sixteen radial incisions, which separate the same number of radial elevations extending from the fossa (*foss. cor.*) to the external margin of the umbrella.

These ridges or elevations (*soc. ta.* and *soc. sb.*) are known as socles,† and support alternately the tentacles and sense-bodies. On the peripheral margin the socles are broader than in the vicinity of the coronal fossa, and are therefore slightly wedge-shaped. In the sketches no difference was observed in the size (breadth) of the tentacular (*soc. ta.*) and the socles of sense-bodies (*soc. sb.*). The specimens from which they were drawn must have shown a marked difference in dimensions.

*I believe that *Nauphanta* is a surface genus. The genus *Atolla*, also ascribed by Hæckel to deep water, has been found again and again in the surface waters of the Gulf Stream by the U. S. Fish Commission steamer *Albatross*. The name *Nauphanta* was applied to a worm in 1876, and to a Medusa in 1879. By the law of priority a new name must be given to the Medusa.

†This term seems preferable to "sockels," a word introduced by the translator in Hæckel's Deep Sea Medusæ of the *Challenger* Expedition (*op. cit.*).

EXPLANATION TO PLATE I.

FIG. 1. *Nauphanta polaris*, Fewkes. View from the oral region.

FIG. 2. *Nauphanta*, from one side.

(a) Fig. 1 and (b) Fig. 2 are corresponding regions of the medusa.

(Both of these drawings were made by H. L. Gardiner.)

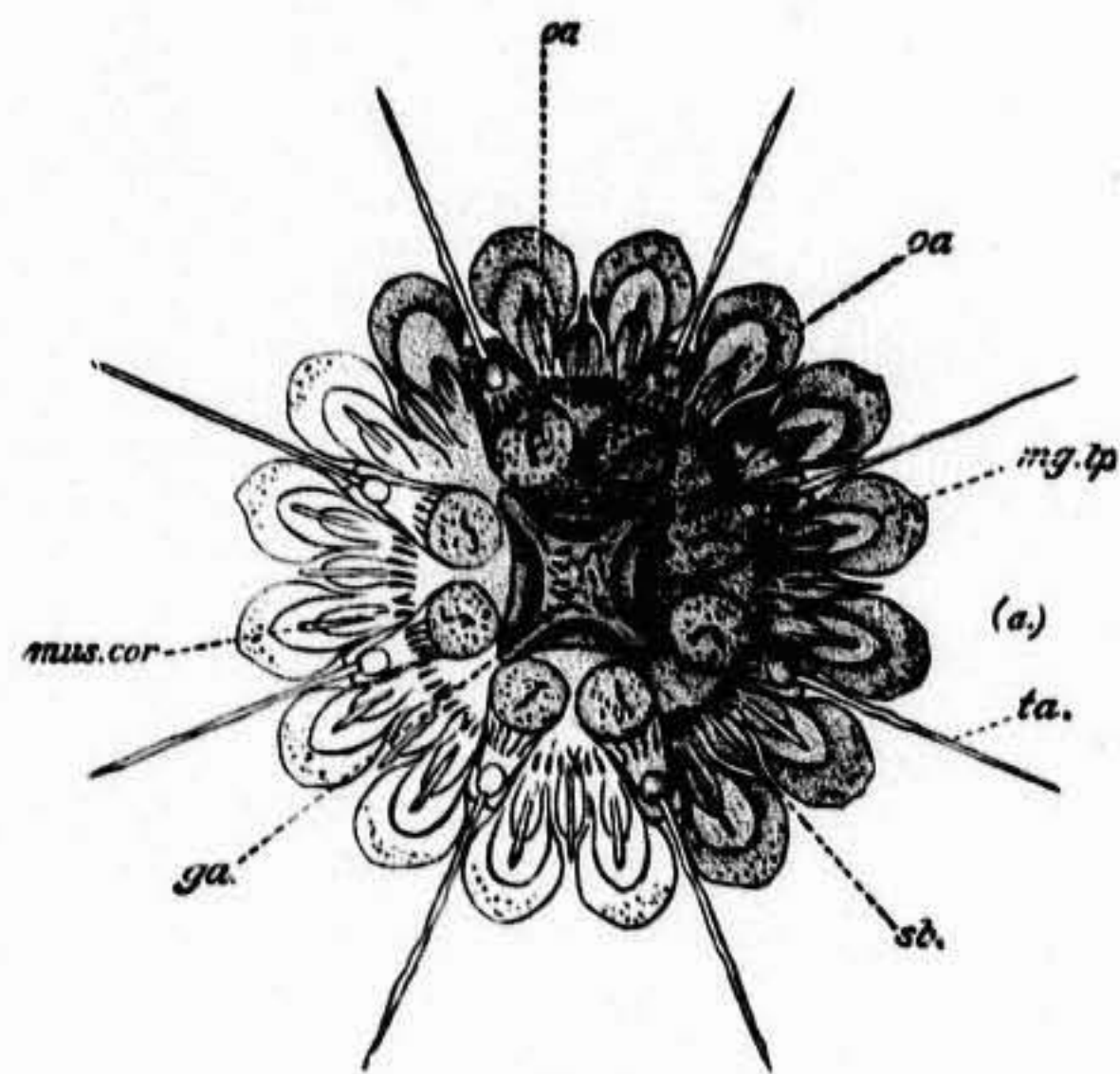


Fig. 1.

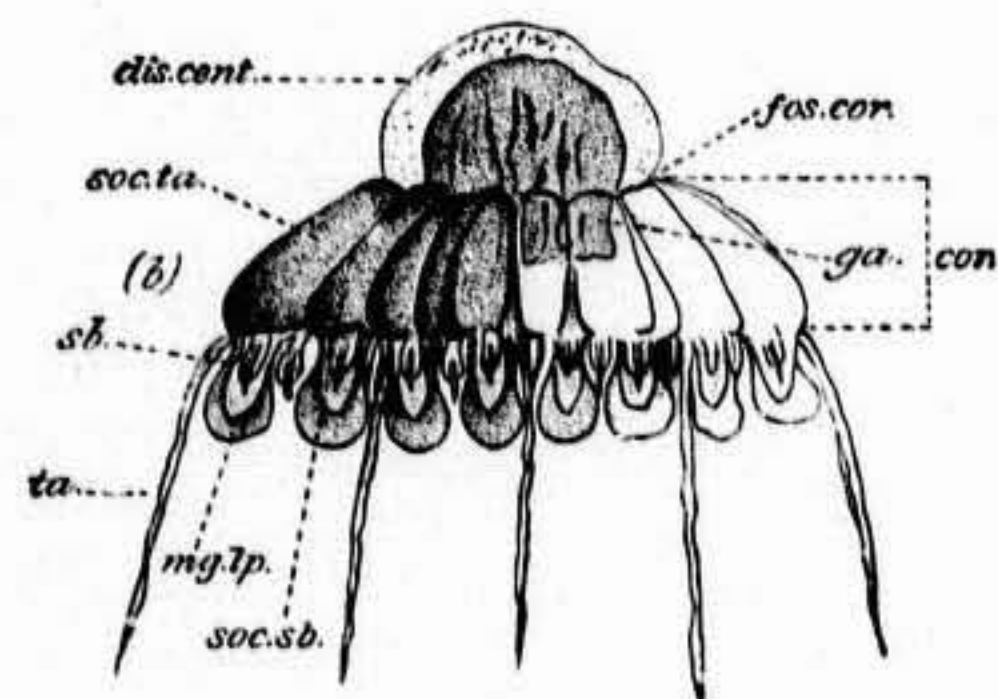


Fig. 2.

Each tentacular socle (*soc. ta.*) bears on the peripheral border a tentacle which alternates with a sense-body. There are therefore eight* tentacles and eight sense-bodies, with the same number respectively of tentacular socles and socles of the sense-bodies.

The marginal lappets (*mg. lp.*) hang almost vertically from the peripheral or abaxial end of the socles. They are sixteen in number, and alternate with the tentacles and sense-bodies, bridging the incisions which separate the tentacular socle from that of the sense-body. Each marginal lappet is circular, composed of an outer, distal, thin region skirting an axial or basal thickened portion, which serves as its support and unites it to the margin of the umbrella. The basal region is penetrated by a simple, unbranched tube, blindly ending on the distal end, and probably opening into a ring-shaped sinus, or sinus coronalis, at the proximal or axial extremity. The region of the lappet which forms its outer end, or rim, is dotted in the sketch as if with a pigment of deeper color than the umbrella.

The tentacles (*ta.*) arise from a somewhat thickened base, into which runs a tube similar to that mentioned in the case of the marginal lappets. The tentacles are eight in number, flexible, "eight-tenths of an inch [20.32^{mm}] in length." The peduncles of the eight sense-bodies (*sb.*) are slender, penetrated by an unbranched tube. No sense-capsules represented in the sketches.

Fig. 1 probably represents the medusa from the subumbrel side, the quadrate central body (*ga.*) representing the stomach, and the ring of eight swollen spherical glands about it the ovaries (*ov.*), or spermaries.

The stomach, when seen from the subumbrel side, is quadrangular, the angles of the square lying in the same radii as alternate sense-bodies. The union of the stomach with the wall of the subumbrella is in the form of a cross with equal arms. The lips are simple, without appendages. Flamentous bodies in the interior of the stomach, inclosed by the four walls of the quadrant, as shown in Fig. 2, are probably gastral filaments. The diameter of the stomach is .65 of an inch [16.51^{mm}].

No visible representation of a division of the subumbrella into central disk and corona was observed.

The eight sexual glands forming a zone immediately surrounding the stomach are regularly arranged, the intervals being about equal between them. Abaxially to this zone, in the position occupied by the great subumbrel coronal muscles of *Atolla* and *Collaspis*, we find a zone of parallel radial markings (*mus. cor.*), which are identified as dividing lines which separate the bellies of the smaller muscles which together form the large muscle.

Still more peripherally placed than the last zone, we can see the abaxial extremities of the tentacular socles through the transparent walls of the subumbrella, and outside of this zone is the zone formed by the under sides of the marginal lappets (*mg. lp.*). There can be little doubt that this medusa, if not the same as *N. challengerii*, is closely allied to it. *Nauphanta* as a genus is so characteristic in the radial sculpturing of the corona, and one sketch of the polar jelly-fish shows the structure in such a marked way, that I have not hesitated to call the medusa from which the drawings were made a true *Nauphanta*. In the notes accompanying the sketches the medusa is doubtfully referred to *Ptychogastria polaris*, described by Allman ("Narrative of a Voyage to the Polar Sea during 1875-'76, in H. M. Ships *Alert* and *Discovery*," vol. ii, p. 292). This suggestion I cannot entertain, for, if the description by Allman can be relied upon (as it undoubtedly can), we find in *P. polaris* none of the characteristic coronal socles of the above description, and a much larger number of tentacles in a smaller specimen. The marginal lappets of the two are very different in size, number, and relative prominence. I cannot, therefore, accept the suggestion of the notes.

Confessedly, however closely the generic details of the structure agree in *Nauphanta challengerii* and *N. polaris*, the profiles of the two Medusæ, as seen in the lateral views by Hæckel for the former, and by Sergeant Gardiner for the latter, are very different. Let me call to mind, however, that Hæckel's sketch is from an alcoholic specimen, while that of Gardiner's is from a live medusa. I believe, therefore, that the latter's profile view (Pl. I, Fig. 2) is more accurate than Hæckel's for general outline, and it certainly approaches more closely what we have every reason to suspect would be the true form of the umbrella from the relationship of the genus to *Periphylla*, where the central zone is more prominent.

The difference in profile between Hæckel's *Nauphanta* and the polar specimen is the main ground of my separating the latter as a new species.

In a reconsideration of what is written above, in the light of new studies of *Periphylla* which have been made upon specimens of this genus collected by the *Albatross*, I am led to think that the *Nauphanta polaris*

*The notes also say that there are eight tentacles. This is an important thing, as it is one of the few differences between *Nauphanta* and *Periphylla*.

is in some way connected with Periphylla. Either those who have captured the medusa of Steenstrup from polar waters have not correctly noted the number of tentacles, and their Medusæ are wrongly identified or my *Nauphanta polaris* with eight tentacles is the medusa which they observed. It is also possible that in the young stages Periphylla has eight tentacles and eight sense-bodies.* This seems, however, improbable, as there are many young specimens of Periphylla in my possession, which are smaller than that of *Nauphanta polaris*, in which we have twelve tentacles arranged in four sets of three each and four sense-bodies. We see, therefore, no reason to suppose that *N. polaris* is the young of Periphylla, and every reason to adhere to what is expressed above, that a new *Nauphanta* occurs in the icy waters of the Arctic.

NARCOMEDUSÆ.

The Narcomedusæ is the third of the four orders into which Hæckel divides the craspedote Medusæ, or those with a true velum. It includes jelly-fishes, with a hearing organ free on the rim of the bell, and with entodermic otoliths. There are seldom ocelli on the base of the tentacles, and the tentacles ordinarily arise from the dorsal side of the umbrella and are connected to the margin by rib-like bodies by which this part of the umbrella is divided into a number of lappets. Radial canals are sometimes present, and often wanting, when they are replaced by pouches from the stomach. Marginal canal ordinarily present, sometimes absent, but when present forming a number of bow-shaped loops. The tentacles vary in number from two to thirty-two. The Narcomedusæ are divided into four families, viz.: (1) *Cunanthidæ*; (2) *Peganthidæ*; (3) *Æginidæ*; (4) *Solmaridæ*.

The Lady Franklin Bay party found representatives of the *Æginidæ* and *Solmaridæ*. Of the *Solmaridæ* they collected *Solmundus* and *Solmundella*.

Solmundella sp.?

A specimen, the sketches of which by Sergeant Gardiner have characters of both *Solmundella* and *Æginella*, was captured in Discovery Harbor. As the most important, perhaps only, difference between the two genera lies in the absence of peroneal canals and circular tube in *Solmundella* and their presence in *Æginella*, and as these structures may have been overlooked if they exist in this specimen, I cannot definitely identify this genus from the drawing. The bell is shaped like that of *Solmundella* and has two long tentacles and eight stomach pouches. The umbrella is destitute of tubes. It is not possible to identify this species from the incompleteness of my knowledge of the Arctic medusa.

Solmundus sp.?

What has already been written of the tubes in the umbrella of *Solmundella* and *Æginella* may be said also of a *Solmarid* with four tentacles, closely allied to the above. If this specimen has peroneal and circular vessels it should be placed in *Ægina*, otherwise in *Solmundus*. As these structures are not represented we must refer it to *Solmundus*, although the fact that *Ægina* is known to occur in the Arctic leads me to suspect that the somewhat inconspicuous tubes were overlooked in the specimen collected by the Lady Franklin Bay Expedition.

Tubes are not represented in the sketches (Lockwood, *del.*), and I have placed the medusa in the genus *Solmundus*. It may, however, be the same as the *Ægina pachyderma*, Hæckel, which was first described from near Nahant. *Solmundella*, or the form described above, may possibly be its younger stage of growth.

According to the notes the medusa when found had "a small shrimp (calanus?) in its stomach," which can easily be seen through the walls of the umbrella.

The specimen "has four tentacles, which, unlike others, spring from the outer surface (of the bell), and have their roots about half way between the summit and base."

Ægina citrea, Eschscholtz.

Mr. Murdoch repeatedly took this medusa in the neighborhood of Point Barrow, Alaska.

* Lieutenant Greely notes that *Nauphanta polaris* of different sizes, from a quarter of an inch [6.35^{mm}] up to the size here shown, were observed, and that the structural appearance of small and large examples were identical. Specimens obtained were kept in glass dishes so that their movements and structure could be seen from all standpoints. Specimens obtained lived many days when kept in sea water occasionally renewed.

TRACHOMEDUSÆ.

Aglantha digitalis, Hæckel.

This beautiful medusa, common in the Arctic, is found as far south as Newport, R. I. In the cold waters of the coast of Nova Scotia it is common.

Aglantha camtschatica, Hæckel.

This species is found in that part of the Arctic adjoining Point Barrow.

CRASPEDOTA.

A number of hydroid Medusæ was taken by the Lady Franklin Bay Expedition, but in most instances it was impossible for me to identify even the families. This group of Medusæ, always the richest in number of genera in all surface fishing, is also found in greater numbers in the polar regions. A few of the more important genera and species of free hydroid Medusæ are introduced as a help to the future monographer of the Arctic hydrozoa. The fixed hydroids known to inhabit Arctic waters are omitted.*

The only craspedote medusa which could be, with any degree of certainty, identified was a species of *Tiara* referred to *T. conifera*, Hæckel.

Tiara conifera, Hæckel.

Two good sketches of a medusa referred to this species were made by Sergeant Gardiner. They agree with Hæckel's description in the most particulars. Hæckel says, however, that the type has from twenty-four to thirty-two tentacles. Sergeant Gardiner's sketches represent at least forty-eight of these structures.

T. conifera is probably a variety of the highly variable *T. pileata*, L. Ag.

The notes mention that with the medusa, which is here referred to *T. conifera*, there was a specimen "like it, with four large and numerous small tentacles, but without projections at the top." I offer the suggestion that this is the young of *T. conifera*, and likewise of the *Oceania turrita*, Forbes, both of which, with *O. octona*, Forbes, are probably one species and young of *T. pileata*.

Although the *O. turrita* has four tentacles, it has a large apical prominence, and must be regarded as older than Greely's *Tiara* with four large tentacles. In the genera *Stomatoca* and *Dinematella*, where a similar apical conical projection is found in the adult, we know that it is absent in the young, and the same condition is probably true in *Tiara conifera*.

The type specimen of *T. conifera* was collected in Greenland.

FREE HYDROID MEDUSÆ KNOWN TO INHABIT THE ARCTIC.

In addition to the list of Medusæ here given there are many others which probably live in the cold waters of the Arctic. We are justified in saying this from the fact that we are acquainted with a number of hydroids from this region, and among them there are genera which have known free Medusæ. As the Lady Franklin Bay party did not collect a single hydroid I have not deemed it warrantable to consider these hydroids.

The following hydroid Medusæ have been collected in the Arctic and adjacent waters. Those with a star prefixed to the generic name were found in the neighborhood of Point Barrow, Alaska, the remainder from the neighborhood of Greenland:

Codonium princeps, Hæckel.

* *Sarsia rosaria*, Hæckel.

Sarsia mirabilis, L. Agassiz.

Pandæa saltatoria, Fab. (?).

Turris digitalis, Forbes.

Turris episcopalis, Fewkes.

Catablema campanula, Hæckel.

Catablema eurystoma, Hæckel.

Melicertum campanula, A. Agassiz.

Bougainvillea superciliaris, L. Agassiz.

Thaumantias eschscholtzii, Hæckel.

Obelia diaphana, Allman.

Stomobrachium tentaculatum, L. Agassiz.

Staurostoma arctica, Hæckel.

* *Gemmaria*.

Polycanna groenlandica, Hæckel.

Ptychogastria polaris, Allman.

* *Staurophora mertensii*, Brandt.

* Genera of Lucernarians, which have been recorded from the Arctic, are also omitted from the list of Acraspeda, where they would properly be recorded. This paper considers the floating medusan life only.

SIPHONOPHORA.

The cold waters of the coast of New England are peopled by a large Siphonophore, to the young of which A. Agassiz gave the name of *Nanomia cara*. This animal, which is very abundant at times in the Bay of Fundy, is probably that referred to in the following note: "April 24, 1884.—I also caught a rope-like collection of organisms which was over a foot long [over .3^m]. They were of blood color, part light or ruby, and part like clotted blood. They moved through the water with a sinuous motion like that of a sluggish snake. They fell apart in the net and separated very readily. Possibly they are eggs of young Medusæ, say of No. 2. There was some gelatinous substance intermixed with them." Since my preliminary report on the Lady Franklin Bay Medusæ was published, I have been able to carefully study the anatomy of the *Nanomia* of A. Agassiz, and shall elsewhere publish an account of the peculiarities of this Siphonophore. My studies support what has already been written by me on the supposed Siphonophore collected by Lieutenant Greely. The Physophore collected by the Lady Franklin Bay party is probably the same as the *Agalmopsis (Nanomia) cara* (A. Ag.), Fewkes, recorded from Robeson Channel by Dr. E. L. Moss ('On the Surface Fauna of the Arctic Seas,' *Journ. Linn. Soc.*, vol. xiv. p. 122.

Epibulia sp.

A species of *Epibulia* is found in the waters of Greenland. An unknown *Diphyes* is also found on the west coast near Robeson Channel.

CTENOPHORA.

Lesueurina, Edwards.

The following notes are thought to refer to the genus *Lesueurina*:

"April 24, 1883.—I caught to-day a very large medusa, 5 inches [127^{mm}] long by 2½ inches [63.50^{mm}] wide. It was of the most delicate character, and fell to pieces while the doctor was getting it into alcohol. I had it drawn by Lieutenant Lockwood. It had two spots of smoke-color at the upper end, which was pointed like a melon. Indeed, the shape was that of a melon, except that the lower end was, as you may say, cut off. There were eight ribs (combs), which were of smoke-color, and which, as far as the lower end went, were simply a succession of annular formations that presented a serrated appearance on either side. There appeared to be two large stomachs. The animal was transparent everywhere, except the ribs and spots and the thread-like outline of the stomachs. Occasionally from the tentacles iridescent colors, with purple shades predominating, were seen."

The last sentence in the above notes would indicate that the *Ctenophore* here described does not belong to *Beroë*, which genus the sketch closely resembles. Neither notes nor sketches are exact enough to determine whether the "tentacles" are true tentacles or auricles. I suspect from the "iridescent colors" that auricles and not tentacles were observed by the writer of the notes. If auricles or tentacles are present, the *Ctenophore* is not a *Beroë*.

Bolina, Mertens.

A sketch which, as far as it goes, points to the genus *Bolina* is supposed to belong to this genus known to frequent Arctic waters.

The following notes confirm this belief:

"Saddle-bags" (a good characterization of the form of *Bolina* when seen in certain conditions).

"Found May 21, 1883.—The fuzzy edges (combs), iridescent and eight in number, extend only half the length of the animal, where they give place to an extension in the form of a thin dark-brown line (chymiferous tubes) running to the lower extremity. Specimen 3 inches (length)."

It is probable that this *Bolina* is the same as that observed in 1671 near Spitzbergen by Mertens, a pioneer in the study of the *Ctenophora*.

Mertensia ovum (?), Mörch.

A good drawing (Gardiner, *del.*) of a tentaculated Ctenophore, allied to *M. ovum*, is found in the collection, with accompanying notes:

"Length (antero-posterior axis), 1.1 inch; width (lateral axis), .7 inch; thickness (shorter lateral axis), .5 inch. Color white, semi-transparent. The fringes (combs) iridescent. Trail cirrhi (tentacles) a delicate pink. The ball (body) in the center, orange, tipped with red."

Pleurobrachia rhododactyla, (Ag.).*Beroë roseola*, (Ag.).

REMARKS ON UNKNOWN MEDUSÆ.

SKETCHES NOS. 9 AND 10.

I find myself unable to make out enough of the structure in sketches 1a, 1b, 1c, 2, 3, and 6 (Lockwood, *del.*) to determine the genus of Medusæ from which they were drawn with any accuracy. Figs. 1a, 1c, and 6 are undoubtedly from a Tubularian hydroid, and 3 is probably either the Ephyra or adult of a *Discophore*. In regard to 2 I have no opinion to express.

NOTES.

I find myself unable to identify the Medusæ mentioned in the following notes:

No. 11.

"Another, no drawing, something like No. 4, Gardiner, *del.*, [The Medusæ drawn by Sergeant Gardiner, No. 4, printed No. 7, is probably *Bolina*, which has only two true tentacles and four auricles, which are possibly the bodies mentioned as tentacles. The four auricles with the two tentacles together would make six tentacles mentioned in the notes.] except (there are) two solid lines and four large tentacles instead of three lines and six tentacles, is nearly crown-shaped, and has two lines which, running from edge to edge, cross each other through the summit. There is a small yellow spot filling in between the lines and the summit. There are four tentacles, the extensions of the dividing lines, and numerous small ones."

If the "two lines which, running from edge to edge, cross each other through the summit," are, as I suspect, rows of "combs," and if there are only four of these rows (*viz.* two pairs) on the surface of the body, this is a new genus.

No. 12.

I have no opinion to express in regard to the generic name of the Medusæ found during the winter in water drawn from "tide-hole." They are, according to the notes, found in large numbers and are phosphorescent. "I doubt," writes Lieutenant Greely, "if they were more than one-twentieth of an inch [1.27^{mm}] in diameter, and the only color visible was a faint brownish spot."

No. 13.

Lieutenant Lockwood saw, at the head of Archer Fiord, 65 miles SSW. of Fort Conger, large numbers of Medusæ which appeared to be of the same kind. Sergeant Brainard, who was with him, also saw them in numbers. Lieutenant Lockwood brought back (to Fort Conger) one of these, which was "round, or nearly so, and about ten inches [254^{mm}] in diameter. It had a dark yellowish color." This may be an Acraspedote medusa, but it is not possible for me to tell to what genus it belongs.

The following Medusæ were collected by the Lady Franklin Bay Expedition:

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| 1. <i>Nauphanta polaris</i> , Fewkes. | 6. <i>Lesueurina</i> sp. (?) |
| 2. <i>Solmundella</i> (?). | 7. <i>Bolina</i> sp. (?) |
| 3. <i>Solmundus</i> (?). | 8. <i>Mertensia ovum</i> , Mörch. |
| 4. <i>Tiara conifera</i> , Hæckel. | 9-13. Other Medusæ of doubtful affinities. |
| 5. <i>Physophore</i> (?). <i>Agalmopsis</i> (<i>Nanomia</i>) <i>cara</i> (A. Ag.). | Sketches and notes insufficient for identification. |