"Shidarezakura Kurage" and "Nagayoraku Kurage"
Cupulita picta Metschnikoff and *Agalmopsis elegans* Sars

by
Tamiji Kawamura

Dobutz, Z. Tokyo, 23 (No. 273), 359-363, 1911 [**pl. 7**]

The bracketed **[..]** and emboldened comments are Totton's marginalia.

"Shidarezakura Kurage" is the Japanese name given to the genus *Cupulita* by Prof. Tijima. "Nagayoraku Kurage" is the name given to the genus *Agalmopsis*. These genera belong to the order Physophorae, suborder Physonectae, family Agalmidae, as did the previously discussed *Agalma okeni* and *Crystallomia polygonata*. However, the latter group belongs to the subfamilly Crystallominae, while the 2 species in question are of the subfamily Anthemodinae. Of these, the genus *Cupulita* is more common. Therefore, the author wishes to call this [**?**] subfamily "Shidarezakura Kurage" (or subfamily "Cupulitae"). The characteristics of this family and the subfamilies have already been discussed in No. 267 of this volume pages 1-10, so they will not be repeated here.

1. Genus *Cupulita* - *Halistemma*.

Only the upper part of the nectophore band is covered in a bell-like hood (involucre). The terminal filament of the tentilla consists of one terminal ampulla and 2 [**NO**] lateral horns [**Is this the translator's mistake? No. Kawamura is confused about the 2 'parts' of Sars' *Agalmopsis* hence <u>his</u> mistake about trifid tentilla**]

Since this genus most commonly occurs in the Mediterranean and in the Atlantic, it has been known for a long time and has been described in many publications as a representative species of the suborder Physonectae. The generic name was given by Quoy and Gaimard in 1824 and the genus *Halistemma* named by Huxley in 1859 is now considered to belong to the same genus.

Cupulita picta [***Nanomia bijuga***]

Plate 7. No. 1-10, Vol. 23

The author was able to study many specimens of this species while stating at Misaki Marine Experiment Station during January and February. Of these, eight are at present kept in the zoological class room of our school (the station). It addition it was also possible for me to examine a perfect specimen preserved by Prof. Iijima.

The body of this siphonophore is extremely small and long [**13.5 cm**] appearing exceedingly weak. The animal, when alive, vigorously expands and contracts. The length of the siphosome is 4 to 6 times greater than that of the nectosome.

The nectosome consists of a pneumatophore on the apex of the middle axis and numerous nectophores arranged in 2 rows around the same axis. There are 10 to approximately 50 nectophore **[? in all**] [**?8-25 in each row**]

The pneumatophore is small and egg-shaped, 1.8 20 2 mm in height and 1 to 2 mm in width, having 8 partitions. The light brown of the apex is very conspicuous and several juvenile nectophores are usually attached directly to the underside of the pneumatophore in the budding zone of the nectosome.

Although the exterior shape of the nectophore is a little confusing, it maintains a perfect symmetry and when viewed from the front, it forms a square whose sides are about 2 to 3.5 mm. On the other hand, the side view gives an irregular hexagonal shape, and its arrow-like axis [**?the facet between 2 ridges**] curves downward

convexly forming approximately a 60° angle with the axis of the nectosome. The outer surface of the nectophore is round and consists of the opening of the nectosac with a wide velum. Its lower margin is rarely extended into a process [**'mouth plate' - but there are two little UU**]. The dorsal surface of the nectophore is slightly depressed, ladder-like [?], and in the natural position it faces above outwardly [**up and out**]. Its surface is wide and divided into two small surfaces by a median groove which, connected to its interior [**ventral**] surface, form a large, extremely shallow curve. These small surfaces each have a diagonally reclining edge [**ridge**] near their inner side, by which they cut the shape of a triangle. [**This is 'the anomalous ridge' of Villefranche specimens 52.9.23.4-5. Often it has a fork - but is v. variable**]

Inasmuch as the outline of the ventral surface of the nectophore is nearly square, the central part protrudes conspicuously, and from its apex a ridge runs to each of the 4 corners like a four-cornered drill. The lateral sides of the nectophore are flat and form a slight irregular rectangle like a modified "S" (of a long axis).

The nectosac is comparatively very large and has, in general, the shape of the nectophore. That is, as seen in the other siphonophores of the same family, the nectosac of this species does not show the central part [**when viewed from dorsal side**] and the lateral branches distinctly. It simply has a wide flat cavity and an opening, almost vertical to this cavity, and the blind end of the former has a pair of conical processes [**the lateral horns**] on its lateral sides. Also one stalk-canal, 4 radial and one circular canals are found on the nectosac. Of these radial canals, the one on the ventral surface is short measuring about 1/4 of the dorsal (radial) canal while both the right and left canals are extremely long and form a very marked curve. [**The exact and characteristic run of these is not completed**]

The axis of the siphosome is slightly larger in comparison to that of the nectosome and freely expands and contracts. On the siphosome, generally more than 10 cormidia are scattered at equal distances.

Each cormidium has a siphon 3 to 6 mm in length. Its proboscis has 8 stripes of muscular bundles on its wall, by which it freely expands and contracts. The stomach is exceedingly long and cylindrical with a large bead-like (ball-like) basal part and a very short stalk. A tentacle extends from its dorsal side. The tentilla of the tentacle has a reddish cnidoband with the upper half hooded by a bell-like cover (involucre) which is connected with a long narrow stalk. On the end of the tentilla is a simple filament which sometimes becomes elongated or shortened. The cnidoband has 3 to 4 coils and its height and width are 8 and 2 mm respectively.

On the axis between 2 connecting siphons, numerous palpons are regularly distributed and the further down the stem each siphon is, the greater the age of the individual. The distribution of the palpons has already been mentioned with the discussion of the cormidia of *Physophora hydrostatica* volume of this publication [**we have not got translation of this**]. This discussion will, therefore, be omitted in this paper. Each palpon is fusiform and has a very thin wall. It ends blindly. At the end is an elliptical nematocyst mass. Although the palpon ordinarily is narrow and long, 1.5 to 0.3 mm in width, it sometimes becomes large, short and spindle-like with a linear dimension of 3.5 mm and a lateral dimension of approximately 2 mm. Each palpon grows a simple palpon filament on its stalk. Near it, are attached one male and one female gonodendron. However, at the top of the siphosome, the gonodendra are immature while on those near the lower end (of the siphosome) numerous gonophores can be seen.

The siphosome is entirely covered with bracts. Those of the dorsal part are extremely large, thin and leaf-like, and are convex on the dorsal side. At the middle

and lateral sides of the end of the bract are conspicuous cylindrical processes. The bracts which cover the palpons by attaching themselves to the nodes of the stem, also have a leaf-like shape but are much wider and shorter than those previously mentioned and the 3 terminal processes, too, are not as distinct. Each bract has a canal running on the ventral side along its median line. Young bracts are like a flattened cone whose exterior, that is, its bottom side [**?distal end**] is deeply concave. Their manner of attaching themselves are by a membranous peduncular lamella as in the Agalmidae.

However, the interpretation given by many investigators in the past that the bracts develop on the upper side of each palpon from its median line (stem) is incorrect. In fact, the peduncular lamellae for 2 longitudinal lines, on each side of the stem even though slightly irregular. Thus, the bracts are generally attached in 4 lengthwise rows around the stem. Inasmuch as the number of these rows may vary, such a distribution of the bracts in this species can be said to be similar to others of the same genus in the same family. In any case, the siphon and the palpons are hidden by one or several bracts and protected by them. Especially with the siphon, one of the bracts is always extremely large and long. However, the question of whether this large bract develops on the left or right side, reciprocally, or irregularly on both sides is not definitely established. That is because the arrangement of the peduncular lamellae is barely distinguishable after the removal of the bract, so that it is absolutely impossible to determine the size of a bract from the stump of the peduncular lamella.

The number of siphonophores belonging to this genus reported by many scientists is not small [**it is**]. For example, Haeckel has 7 species in his "Challenger Report".

1. *Cupulita bowdichii* Quoy and Gaimard [**1824**]
2. *C. Sarsii* (= *Agalmopsis elegans* Sars partim) **[= *Nanomia cara* (No. 4)]**
3. *C. canariensis* (= *Anthemodes canariensis* Haeckel) [***N. bijuga***]
4. *C. cara* (=*Nanomia cara* A. Agassiz) **[= No. 2**]
5. *C. fragilis* (= *Agalmopsis fragilis* Fewkes)
6. *C. picta* (= *Halistemma pictum* Metschnikoff) [***N. bijuga***]
7. *C. tergestinum* (= *Halistemma tergestinum* Claus) [***N. bijuga***]

Of these, one, No. 1 the author cannot offer a conclusive opinion without the original description, but No. 6 probably is probably the same as the species discussed here, while No. 2 is identical with the species discussed below. Therefore, it undoubtedly belongs to a different genus. [**Kawamura is confused. Haeckel's No. 2 *Cupulita sarsii* is distinct from the *Agalmopsis* part Haeckel's No. 2 and maybe the same ???**] Nos. 3, 5, 7 like No. 6 do not show any different characteristics. Therefore, the names given here are in al probability other names given to the species in question. Only No. 4 [**same as Haeckel's No. 2**] appears to be different. In addition two species *Halistemma rubrum* Huxley (= *Agalma rubra* Vogt) and *Halistemma punctatum* L. Agassiz (= *Agalmopsis punctata* Kölliker) which Huxley classified in the genus *Halistemma* are both clearly [**NO**] identical [**NO**] to *Cupulita picta* Metschnikoff [**NO!!!!!!!!!!!!!!!!!!!!!!!!**]

Nagayoraku Kura Zoku (*Agalmopsis*) [***Agalma***]

The cnidoband is encased in a perfect sac (involucre). The end of the tentilla consists of a terminal ampulla and 2 lateral horns.

The genus *Agalmopsis* was originally created for a [**two species of which Haeckel selected the one with trifid tentilla as the type species**] North Atlantic species by Sars in 1846. However, at present it [**the name**] belongs to the genus

Cupulita [**NO**] as mentioned above. The ideal representative species of this genus is the one given below. Specimens of this species found in both the Atlantic and in the Mediterranean are the same as the species occurring in our Japanese waters. Our name was given on the basis of its greater length in comparison to *Agalma* although the former in general resembles the latter genus. (Translator's remark: Nagayoraku Kurage - Naga = long, Yoraku Kurage [**?medusa**] = *Agalma*, hence "long *Agalma*") However, it varies from *Agalma* conspicuously in one respect, namely, that its siphosome is exceedingly long and loosely covered with the leaf-like bracts. In this point, the genus rather closely resemble the genus *Cupulita* but when considering the structure of its tentilla, it, on the contrary, agrees with *Agalma*.

Naga Yoraku Kurage *Agalmopsis elegans* Sars
Plate 7, figs. 11-17

The author was able to obtain a perfect specimen of this species as Misaki Experiment Station on January 29 of last year and at that time, had a chance to observe a number of much larger forms but it was impossible to catch them since the depth was too great.

The nectosome of the species consists of a pneumatophore on the apex of a narrow stem, generally forming an octagonal drill. The nectosome measured approximately 45 mm in length and 13 mm maximum diameter. Its pneumatophore did not differ at all from that of the previously discussed *Cupulita picta*. As far as its nectophores are concerned it resembles *Agalma okeni* more than *Cupulita picta*. The shape is symmetrical - the dorsal and the ventral sides, that is, the upper and lower sides, are flat and have 1/3 of their inner sides wedge-shaped (cuneiform). On its median line there is a deep arch. The outer 1/3 of the nectophore becomes outwardly progressively smaller from the left and right (of the median line), forming a decapitated four-cornered drill (see Fig. 12 of plate). The upper surface of the nectophore is slightly convex with a large rounded process from its centre. This process further appears to fit together with a depression on the underside of the corresponding nectophore lying above it. The lateral side is divided into two surfaces by a longitudinal ridge - the inner side triangular and the outer side four-cornered. The outer surface is small and square, being occupied by the nectosac opening, which has a wide velum.

The nectosac is comparatively very small occupying the outer half of the nectophore. The cylindrical part along its median line is almost the same size as the blind sac-like parts to the right and left, situated on the same horizontal surface but at a right angle.

The canal enters the nectophore at the bottom end of the curved median line and immediately shoots out a short, simple branch above and below. Then it reaches directly over the median surface of the nectosac where it branches out into 4 radial canals. Of these, 2 above and below, are short and only run along the nectosac wall over the median surface while the other two on the lateral sides (left and right) are extremely long and coil around this wall. These canals are connected to a circular canal at the basal part of the velum of the nectosac mouth.

The siphosome is slightly larger than the nectosome and very long and cylindrical. Its dimensions measured approximately 21.5 cm in length and 1.5 cm in width. The siphosome consists of cormidia situated on a narrow axis and numerous leaf-like bracts which surround it entirely.

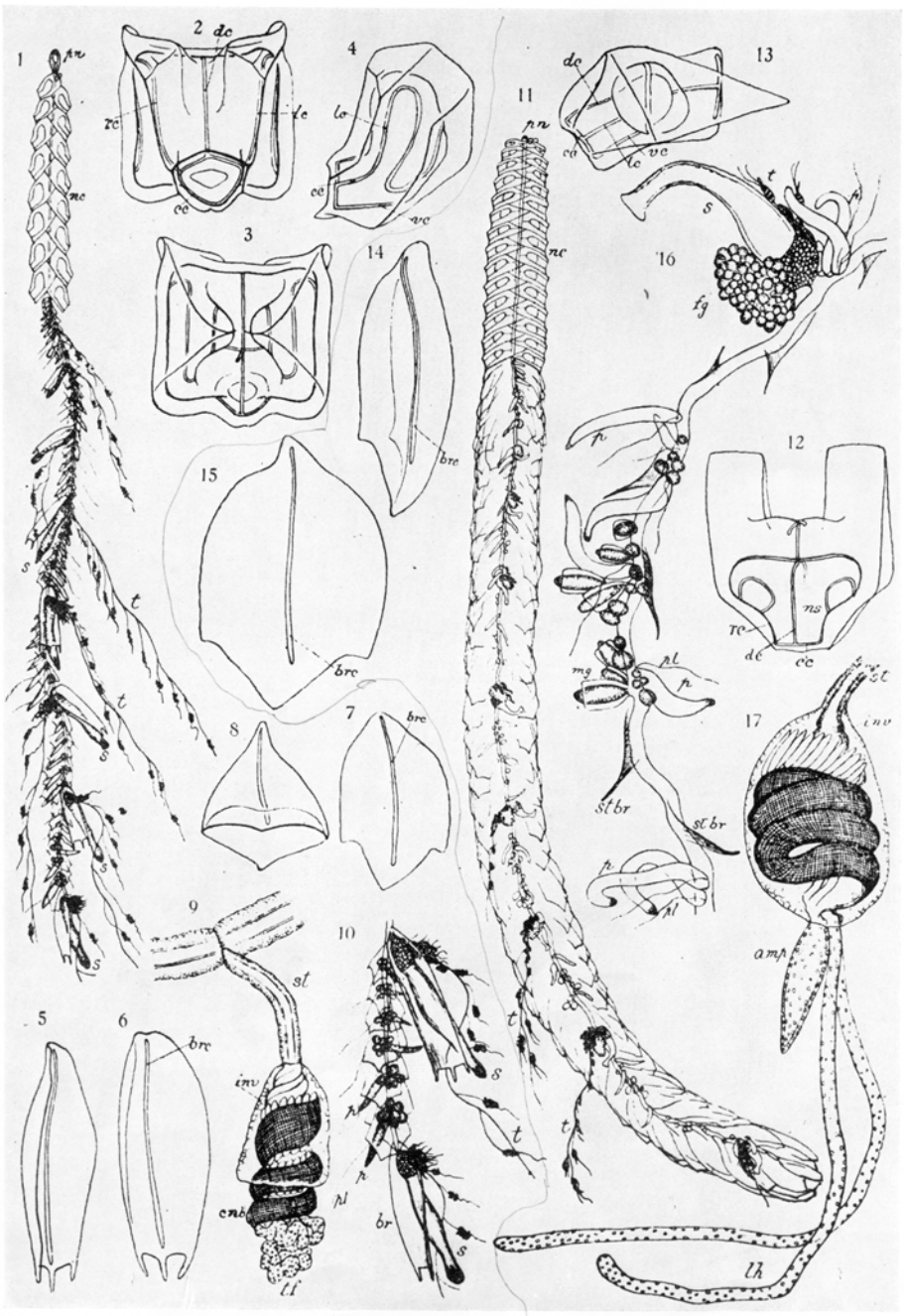
The mature bract is 10 mm long and 6 mm wide. Its upper surface is convex while its lower surface is concave. Particularly, since it follows along the longitudinal

axis, its general appearance is like a small inverted boat. On the extreme end none too conspicuous (slightly conspicuous) processes [**ridges**] are found in the middle and at both sides. A canal which runs on the underside of the bract develops at the leading end of the inner side, terminating near the extreme end (extremity) of the median line. The bracts are, in general, symmetrical and although those on one side differ slightly from those on the other side that are all relatively similar in shape. The manner in which the bracts attach themselves to the stem is, of course, by the peduncular lamella. However, the author regrets very much not having had a chance to study this on a live specimen or on a preserved specimen because of its torn condition. This particular species has been recorded in detail be Sars [**tentilla only**], Kölliker, Fewkes, etc. in the past, none have as yet clearly described the arrangement of the bracts. But it may, perhaps, have 2 rows each of bracts on the left and right as in the case of *Cupulita picta*.

Excluding young cormidia, there were approximately 12 cormidia found on the stem of the specimen. The basal part of the siphon is well developed and a tentacle extends from the stalk. The lateral branches of the tentacle are equipped with a large tentilla on the top of a long stalk, with a reddish cnidoband coiled counter-clockwise 3 or 4 times and completely encased in a transparent sac (involucre). On the upper part of the cnidoband spindle-shaped nematocysts are attached forming a line. There is, however, one point which must be born in mind, that the lower end of the cnidoband turns clockwise in contrast to the other parts of this structure. This fact has not been reported for *Agalmopsis elegans* (C. sarsii) or for other siphonophores belonging to this family. It is the only difference existing between this species and those of the Atlantic. However, if such a structural variation is actually true, we can well accept the former as a variety of the latter. Yet, according to illustrations made by the past master, in which the cnidoband simply coils around several times it is difficult to determine whether it is clockwise or counter-clockwise. There is reason for some doubt on the direction of the turns. The terminal filament of the tentilla consists of a spindle-shaped terminal ampulla and 2 cylindrical lateral horns. The latter are exceedingly narrow and long - almost 4 times greater in length than the former. Both have small nematocyst over the entire surface.

The palpons are irregularly distributed over the stem. This characteristic is one of the specific differences between this genus and the genus *Cupulita = Halistemma*. Each palpon is long, spindle-shaped with a palpon filament growing from the base of its narrow stalk. Its blunt tip is protected by a group of nematocyst, quite similar to common palpons.

A female gonodendron is found directly below the siphon, and numerous male gonophores are scattered over the middle 1/3 of the internodal section of the stem without forming a cluster (gonodendron). [**An arrangement shown clearly, though crudely, by Kölliker 1853**]



[Copied from Totton, 1965, Pl. X]

Legend Vol. XXIII, Plate 7. Figures 1-17

Cupulita picta Metschnikoff **[= *Nanomia bijuga*]** Figs. 1-10

Fig. 1. Entire animal a 1 1/3 [**13.5 cm**]

Figs. 2-4 Nectophores x 7.

Figs. 5-6. Bracts x 7.

Fig. 7. Internodal bracts x 15.

Fig. 8. Young bracts x 15.

Fig. 9. Tentillum x 15.

Fig. 10. Cormidia x 2 2/3.

Agalmopsis elegans Sars. Figs. 11-17.

Fig. 11. Entire animal x 2/3.

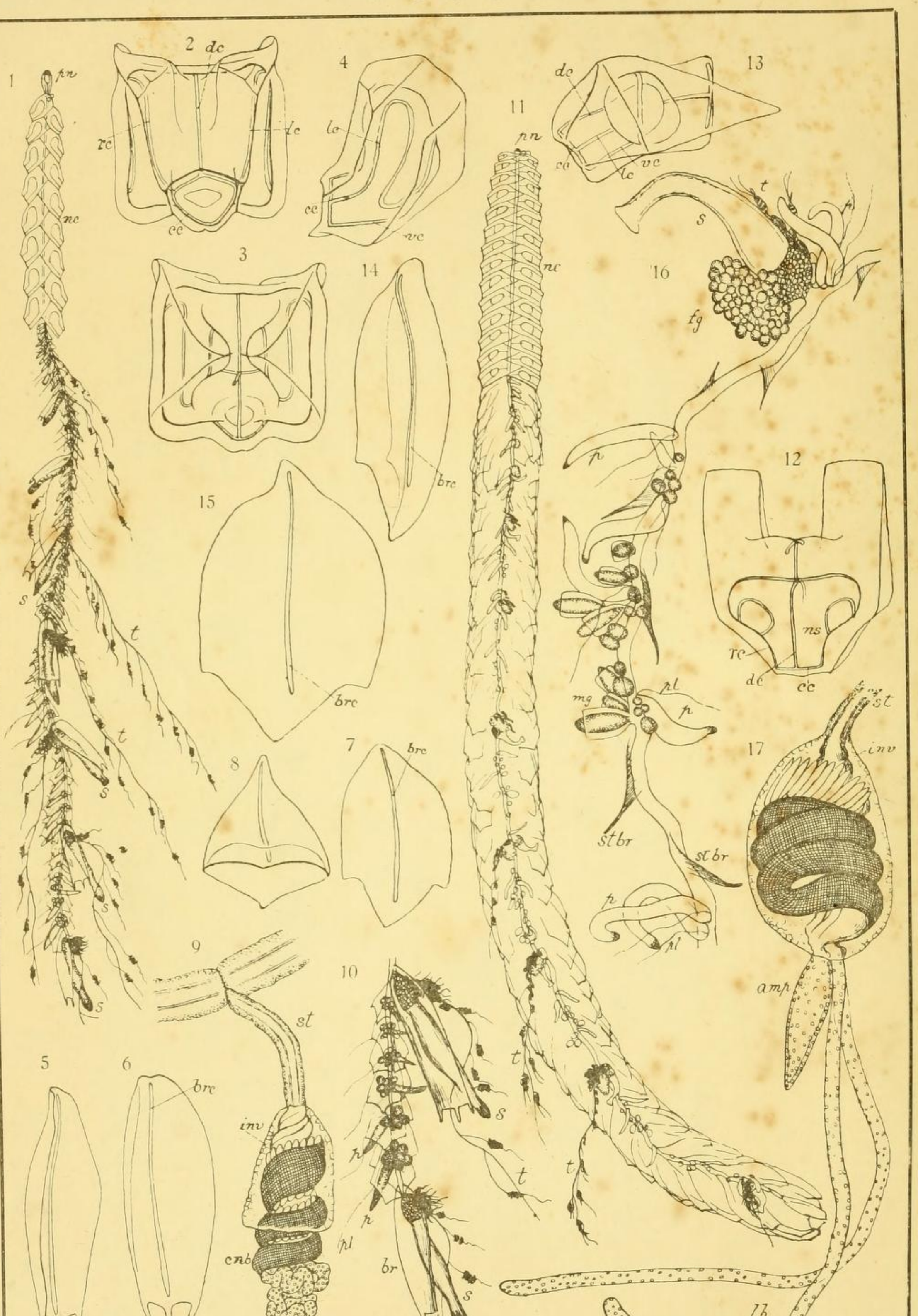
Figs. 12-13. Nectophores x 6.

Figs. 14-15. Bracts x 4.

Fig. 16. Cormidium (without bracts) x 4.

Fig. 17. Tentillum x 15.

nc. nectophore; pn. pneumatophore; t. tentacle; s. siphon; cc. circular canal; lc. lateral canal; rc. radial canal; vc. ventral canal; brc. bracteal canal; st. stalk; inv. involucre; cnd. cnidoband; tf. terminal filament; p. palpon; br. bract; fg. female gonodendron; mg. male gonophore; pl. palpon filament; st.br. peduncular lamella; amp. ampulla.



T. KAWAMURA del.

動物學雜誌

明治四十四年發行

第二十三卷

（自第二百六十七號至第二百七十八號）

東京動物學會

動物學雜誌　第二十三卷第二百七十三號　明治四十四年七月十五日發行

論說

●シダレザクラクラゲとナガヤウラククラゲ

理學士　川村多實二

（第二十三卷第七版附）

シダレザクラクラゲとは管水母類の一屬（*Lipulia*）に向つて飯島先生の命名せられる和名、ナガヤウラククラゲとは余が同じく屬（*Stylocysis*）に向つて用ひんとする稱呼なり。此兩屬は共に目 Physophorae 亞目 Physonectae 科 Agalmidae に屬すること、余が先きに報告したるヤウラククラゲ及びコヤウラククラゲに同じ。但し後者は亞科 Crystallominae に屬すれども、此二種は共に亞科 Anthomedusinae に屬す。シダレザクラクラゲは此亞科の中に於て最も普通なる屬なるを以て、余は該亞科を呼んでシダレザクラクラゲ亞科と稱せんと欲す。此科及び亞科の特徴に就きては既に本誌第二十三卷第二百六十七號に略述したるを以て茲に再び說かざる可し。

●シダレザクラクラゲ屬（*Cupulitidae=Hadistemmidae*）

刺胞帶は上部のみ鐘狀の被蓋を以て被はる。刺胞叢の終絲は一個の終末囊と二本の側角とより成る。

此屬は地中海大西洋に於て極普通なるが爲めに、早くより觀察せられ Physonectae 亞目の代表者としてよく書籍中に例示せらるゝ動物なり。此屬名は一八二四年クオアー、ゲーマール兩氏が作れるものなるが、ハックスリーが一八五九年に作りし *Hadistemma* 屬は現時に於ては全く同一の屬と認めらる。

シダレザクラクラゲ *Cupulitia picta* METSCHNIKOFF

（第二十三卷第七版第一乃至第十圖）

余は昨年一月より二月に亙り三崎臨海實驗所に滯留中本種の標品多數を見ることを得其中八個は今動物學敎室に保存しあり其他飯島先生の固定せられし完全なる標品をも見たり。

體は甚だ細長くして纖弱なり。生時に於ては活潑に伸縮す。營養部は泳鐘部の四倍乃至六倍の長さを有す。

泳鐘部は中軸の頂端にある一個の氣胞と、中軸の周圍に二列に配置せられたる多數の泳鐘とより成れり。泳鐘の數は十乃至五十餘なり。

氣胞は小くして卵球形高一・八乃至二ミ、メ、幅一乃至

一•二ミ、メ、八個の隔壁あり。頂端の茶褐色素著しく見らる。氣胞の直下、泳鐘の芽出部には數個の幼泳鐘の附着せるを常とす。

泳鐘の外形は稍複雜なるが、完全なる左右相稱を保てり、外側正面より見る時は一邊の長二乃至三•五ミ、メ、なる正方形をなし、側面より見る時は不規則なる六角形を呈す、其矢狀軸は少しく下方に凸隆して彎曲し、泳鐘部の中軸とは約六十度の角度をなせり。泳鐘の外面は圓形にして廣き緣膜を具ふる泳囊の開口によりて占められ、其下緣が突起狀に延長せること少し。泳鐘の背面は少しく凹入し、梯形にして、自然の位置に於ては外上方に向へり、此面の上半は廣く淺き正中溝によりて左右の兩小面に分たる、溝は泳鐘の內面に續きて其所に大なる甚淺き彎入を作れり。上記の兩小面は其內方に近く斜に橫はれる一稜ありて、一個の三角形の小面を切り取れり。泳鐘の腹面は外廓殆正方形なるも、中央部著しく突起し其頂點より四隅に向ひて走る稜あるを以て、恰も四角錐の如き形を爲せり。泳鐘の側面は扁平にして、長軸の稍S字形に曲れる長方形をなせり。

泳囊は比較的甚大にして、大凡泳鐘の外形を繰返せり即ち他の同一科管水母の泳囊に見る如く中央部側枝部の明なる區別なく、單に廣大扁平なる腔室と、之と殆直角の方向をなせる開口部とありて前者の盲端は左右一對の圓錐形突起を有す。一本の柄管と四本の放射管、一本の環管とあり。腹側放射管短くして背側放射管の約四分の一に過ぎず左右兩側放射管は甚だ長くして其走向強く彎曲せり。

營養部の中軸は泳鐘部のそれに比して少しく太く、伸縮自在なり。其上には通常十個以上の幹群等距離に配置せらる。

各幹群には一個の營養體あり。長さ三乃至六ミ、メ、其吻部は壁に八條の筋肉束ありて活潑に伸縮し、胃部は頗長くして圓筒形、基部は球形にて太く、柄部は極短くして背側より一本の觸手を出せり。觸手の刺胞叢には細長き柄部に續きて、鐘形の被蓋によりて其上半を被はれたる赤色の刺胞帶あり、又其先端に一本の單簡なる絲ありて、或は長く延び、或は收縮して存す。刺胞帶は三乃至四回螺旋狀に捩れ、其高さ八ミ、メ、幅二ミ、メ、あり。

二個の連續せる營養體の間の軸上には多數の感觸體規則正しく配置せられ、下方に至るに從ひて順次其齡を增せり。其配置に關しては本誌前號バレンクラゲの幹群の配列を論ずるに際して既に述ぶる處ありたるを以て玆に略す。各感觸體は紡錘狀にして極薄き壁を有し、先端は盲狀に終り、其所に一個の橢圓形の刺細胞集團を具ふ。感觸體は長一•五乃至二ミ、メ、幅〇•二乃至〇•三ミ、メ、の細長き形を取るを常とすれど、時に太く短く長さ三•五ミ、メ、幅二ミ、メ、位の紡錘形を取れることあり。各感觸體の柄部よりは一本の簡單なる感觸絲出づ、又同所に近

く各一個の雌雄生殖叢を附着し、上方の感觸體にては未熟なるも下方に於ては數多の生殖體を生ぜるを見る。

營養部は多數の保護葉によりて完全に被包せらる。就中營養體の背部を被へるものは甚大にして薄く、葉狀にして背方に向ひて凸隆せり。其末端には中央及び左右兩側に圓筒狀の著しき小突起あり。幹の節間部に附着して感觸體を被包せる保護葉も亦、其形葉狀をなせども、上記の保護葉に比し幅廣くして短く、又先端の三突起は不著明なり。各保護葉は其正中線腹面に沿ひて走れる一本の管を有す。幼稚なる保護葉にありては形扁壓せられたる圓錐形にして、其外面即ち圓錐の底面に當れる所は深く凹陷せり。保護葉の幹に附着する方法は他のヤウラククラゲ科管水母の場合と同樣に、膜狀の拇瓣によれり。然るに從來凡ての學者の云へる保護葉が各感觸體の上側正中線より出づとの解釋は誤にして拇瓣は稍不規則乍ら幹の各側に於て縱に二列をなして存せり、從つて保護葉は幹の周圍に大凡四縱列をなして配置せらるゝものにして、列數の差違こそあれ、他の同一科の諸屬に見る保護葉の配置と其揆を一にするものと謂ふ可し。而して各營養體及び感觸體は其近傍にある一個又は數個の保護葉の下に潛在し之によりて保護せらるゝものにして、營養體の場合には特に其一が著るしく長大となりたるものに外ならず。但し此大なる保護葉が左側より起るか、右側より起るか、或は交互に起るか、或は不規則に兩側より起るかの點に至りては未だ詳ならず、之れ拇瓣の配置は切片にして始めて稍之れを追求し得るものなるに、切片としたる時の拇瓣の大さ等によりて保護葉の大小を判斷することは到底不可能の事なるを以てなり。

本屬の管水母として古來學者によりて報告せられたるもの決して少からず、ヘッケルは『チァレンジァー』報告の管水母類に於て次の七種を計上せり。

一、*C. bondichii* Quoy et Gaimard.
二、*C. sarsii* (=*Aglaophysis elegans* Sars partim)
三、*C. canariensis* (=*Authomedes canariensis* Haeckel)
四、*C. cara* (=*Nanomia cara* A. Agassiz)
五、*C. fragilis* (=*Aglaophysis fragilis* Fewk)
六、*C. picta* (=*Halistemma pictum* Metschnikoff)
七、*C. tergestinum* (=*Halistemma tergestinum* Claus)

此中第一は原著を見ざれば確言し難きも多分第六即ち本種と同一ならん、第二は次に記すナガヤウラククラゲなれば、無論別屬なり。第三、第五、第七孰れも第六即ち本種と異種とす可き特徵を見ず此等の名は本種の異名として可ならん。獨り第四のみは別種なるが如し。其他ヘッケルが *Halistemma* 屬に入れたる *H. rubrum* Huxley (=*Aglaura rubra* Vogt) と *H. punctatum* L. Agassiz (=*Aglaophysis punctata* Nölliker) の二種は共に明に本種と同一種なり。

●ナガヤウラククラゲ屬（*Agalmopsis*）

刺胞帶は完全なる囊に包まる。絲絛は一個の終末囊と二本の側角とよりなる。

Agalmopsis 屬は千八百四十六年サースが北大西洋の種に向つて作れる屬なるが今は該種は前に述べし如くシダレザクラクラゲ屬のものとなりたり。此屬の好代表種は即ち次に記載する一種にして大西洋並に地中海の種は我近海に産するものと同一種なり。本屬の和名は其外見ヤウラククラゲ（*Agalma*）に似て彼よりも長き事より選びたるものに外ならず。されどヤウラククラゲとは其營養部甚だ長くして緩やかに葉狀の保護葉に被はるゝ點に於て著しく異れり。此點に於て本屬は寧ろ甚だシダレザクラクラゲ屬に近けれども、其刺胞囊の構造に於ては却つて全くヤウラククラゲに一致せり。

ナガヤウラククラゲ　（第二十三卷第七版第十一乃至第十七圖）

Agalmopsis elegans SARS.

余は昨年一月二十九日三崎實驗所沖合に於て本種の完全なる標品一個を捕へ得たるが、當時猶多數の一層長大なるものが、水中に游泳せるを認めたるも、深くして如何ともする能はざりき。

泳鐘部は細き幹の頂上にある一個の氣胞と、其周圍に二列に配置せらるゝ泳鐘とよりなり、側扁八角錐をなせり、其長さ大凡四五ミ、メ、長徑一三ミ、メ、を測りたり氣胞の構造は前記シダレザクラの塲合と少しも異らず。

泳鐘はシダレザクラクラゲの泳鐘よりもヤウラククラゲの泳鐘に似たり。形左右相稱にして背腹（即ち上下）に扁平、內方三分の一は楔形をなし。其正中線には深き彎入あり。外方の三分の一は外に向つて左右より細くなり、截頭四角錐形をなす。泳鐘の上面は少しく凸隆し、更に其中央に大なる圓形の隆起ありて、泳鐘の下面に在る之れと相應する凹陷と關節する樣になれり。泳鐘の側面は一個の縱稜によりて、內方の三角形、外方の四角形の兩面あり。泳鐘の外面は小にして正方形をなし、廣き緣膜を具ふる泳囊口によりて占めらる。

泳囊は比較的甚だ小にして、泳鐘の外半を占むるのみ其正中線にある圓筒形の部分は左右の盲管狀の部分とは殆同大且同一水平面上にあり之と直角に位置せり。

柄管は彎入の底正中線に於て泳鐘に入り、直に上下に短く終れる簡單なる一枝を出し、正中面を直線に泳囊に達し其處に四本の放射管に分る。就中上下の二本は短く、正中面を泳囊壁に沿ひて走れるのみなるが、左右の二本は甚だ長く泳囊壁に沿うて蛇曲せり。此等放射管は泳囊口緣膜の基部に於て一本の環管により連結せらる。

營養部は泳鐘部よりも少しく太く、且甚だ長くして圓筒狀をなす。其長さ大凡二一•五セ、メ、幅一•五セ、メ、を測りたり。此部は細き軸の上に配置せらるる幹群と、其周圍を完全に被包せる多數の葉狀の保護葉とよりなれり。保護葉の完成せるものは長一〇ミ、メ、幅六ミ、メ、上面

は凸陷下面は凹陷す、殊に縦の軸に沿ひて然るを以て、保護葉の概形は小船を伏せたるが如し。末端は中央及び其兩側に稍著明なる突起あり。保護葉の下面に沿ひて走る一本の管あり、内方の先端より起り、正中線を尖端に近く達して終る。保護葉は大體左右相稱形なるも、體の右側にあるものと左側にあるものとによりて少しく其形を異にし、恰も相對應せる形なり。保護葉の幹に附着するは拇瓣によれること勿論なるが其配置は生ける間に審に驗することを得ざりしのみならず、固定したる標本亦全く支離滅裂の狀況にありしが故に、遂に之れを確むること能はざりしを遺憾とす。本種は古來サース、ケリケル、フュークス等の人々によりて詳しく記載せられたるものなれども、保護葉の配列如何に至つては何人も之を明にせし者なし。或はシダレザクラクラゲの場合の如く、左右側各二列の保護葉を有するに非ざるか。

さて幼き幹群を除きて幹の上に大凡十二個の幹群配列せられて存せりき。營養體の基部はよく發達し、拇部よりは一本の觸手を出せり。觸手側枝は長き拇の先きに大なる刺胞叢を具へ赤色の刺胞帶は三四回右螺旋狀に蜿曲して、透明なる囊によりて完全に被包せらる。刺胞帶の上部に接着して、紡錐形の巨大なる刺細胞整列せり。注意す可きことは刺胞帶の下端が他の部分と反對に左旋を取れることにして、從來 *Aglaiopsis elegans* (*A. sarsii*) のみならず、此科の管水母に於て報告せられたることなき事實なり。こは本種と大西洋種との間の唯一の差違にして、若しそが果して眞實存在するものならば、本種は後者の變種に相當するものならむと信ずれども、種々の點より判斷して、古人が刺胞帶が單に數回螺旋狀（右旋か左旋かは了解し難し）に卷けるのみの樣に圖示せるは稍疑なき能はず。刺胞叢の終絲は一個の紡錐狀の終末囊と二本の圓筒形の側角とより成る。後者は甚だ細長く殆ど終末囊に四倍せり。各は全面に小刺細胞を備ふ。

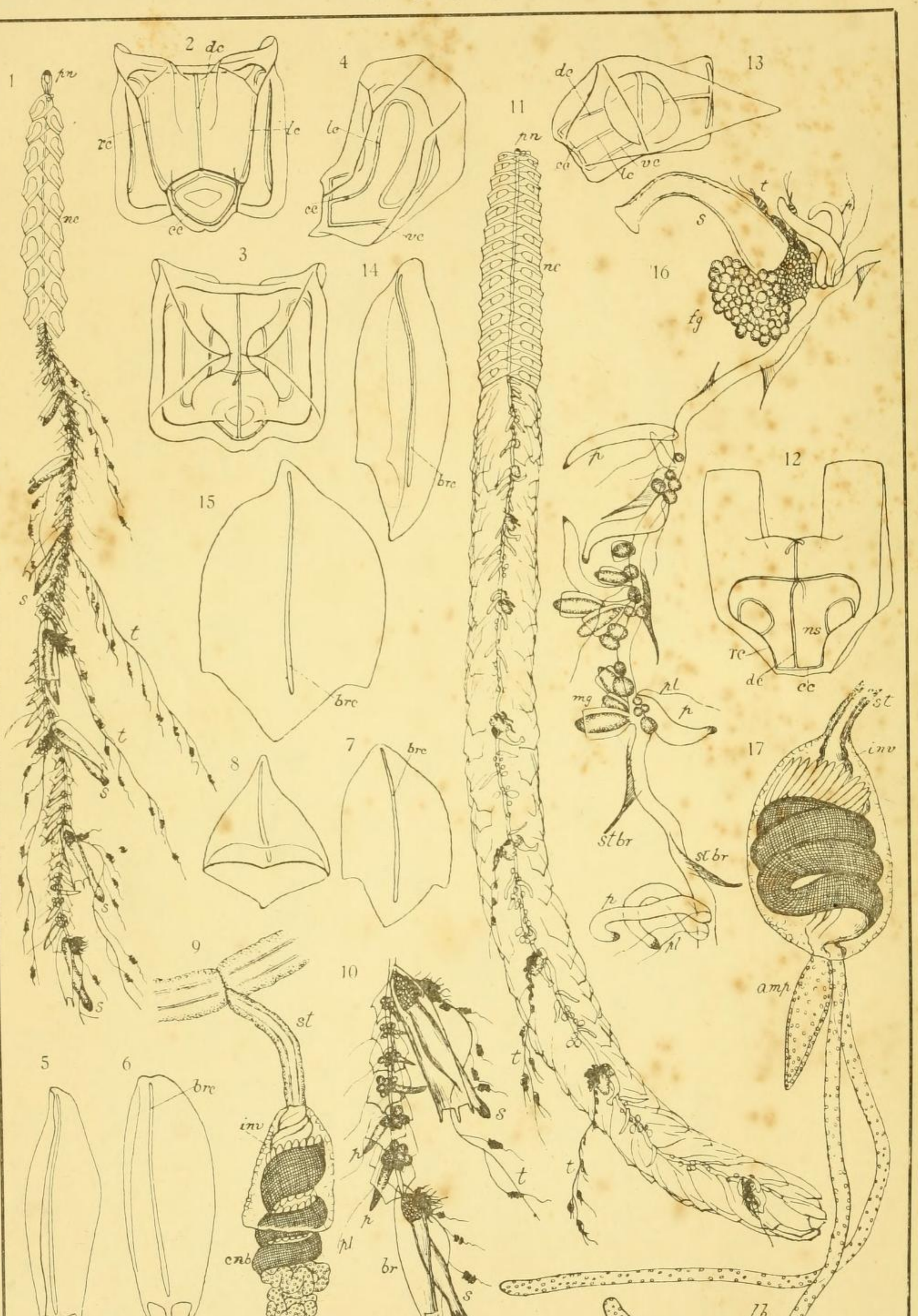
感觸體は幹の上に不規則に配置せらるゝが如く見ゆ、此性質は本屬とシダレザクラクラゲ屬との間の差違の一なり。各感觸體は長紡錘形にして、其細拇の根本よりは一感觸絲を出し、又其盲狀に終れる先端は刺細胞の一群により防護せらるゝこと普通の感觸體の場合に異らず。

一個の雌生殖體叢は營養體の直下にあり。多數の雄生殖體は生殖叢を形づくらずして、幹の節間部中央三分の一の處に散在せり。

第七版圖解

第一—十圖**シダレザクラクラゲ** 第一圖全形（×1½） 第二—四圖泳鐘（×7） 第五—六圖保護葉（×7） 第七圖節間保護葉（×15） 第八圖幼保護葉（×15） 第九圖刺胞叢（×15） 第十圖幹群（×9/10）。

第十一—十七圖**ナガヤウラククラゲ** 第十一圖全形（×9/10） 第十二—十三圖泳鐘（×6） 第十四—十五圖保護葉（×5） 第十六圖保護葉を除きたる幹群（×5） 第十七圖刺肥叢（×15）



T. KAWAMURA del.