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DEPARTMENT OF AGRICULTURE AND TECHNICAL INSTRUCTION FOR IRELAND.

# REPORT

ON THE

SEA AND INLAND FISHERIES OF IRECAND

FOR

1902 AND 1903.

3 vols. in I

PART I.—GENERAL REPORT.

PART II.—SCIENTIFIC INVESTIGATIONS.

PART II. SCIENTIFIC INVESTIGATIONS.

Presented to both Youses of Parliament by Command of Fis Majesty.

AGRICULTURE AND TECHNICAL INSTRUCTION (IRELAND) ACT, 1899.

(62 AND 63 VIC., CAP. 50.)



15-8239

DUBLIN: MAJESTY'S STATIONER

PRINTED FOR HIS MAJESTY'S STATIONERY OFFICE,
BY ALEXANDER THOM & CO. (LIMITED), ABBEY-STRUET-

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1905.

[Cd. 2535.] Price 8s. 7d.

## APPENDIX, No. I.

- 1.—Notes on the Plankton of Valencia Harbour, 1899-1901, by M. and C. DELAP.
- 11.—Notes on the rearing, in an Aquarium, of Cyanea Lamarcki, Peron et Lesueur, by M. J. DELAP.

#### THE PLANKTON OF VALENCIA i.—NOTES ON HARBOUR, 1899-1901,

BY

#### M. & C. DELAP.

The following notes continue the record of townettings taken in Valencia Harbour during the years 1895—1898, and published in the Proceedings of the Royal Irish Academy, Ser. III., Vol. 5., by Mr. E. T.

Having succeeded in rearing Chrysaora isosceles to maturity (Irish Naturalist, February, 1901), we were encouraged to try Cyanea, and the result is given in the accompanying paper.

We are greatly indebted to Mr. Browne for his kind help in revising

and correcting our notes, and identifying specimens

These notes give the results of townetting and collecting for the years 1899—1901.

The hauls are generally taken near Reenagiveen Point, or about a quarter mile further down the harbour, towards the lighthouse, on a

When the surface of the water is calm, the jelly-fish are lifted in a jar by hand, and in this way more perfect specimens can be obtained than

by the townet.

The temperatures are taken on the surface from the boat when townetting, or from the rocks at Reenagiveen (when too rough for boating), where the water is deep, and a strong tide flows past.

During the winter months, December, January, and February, marine organisms are very scarce, a few copepods only being taken. This is

probably due to heavy seas and stormy weather.

Young stages of medusae, fish eggs, &c., make their appearance towards the end of February, and copepods become plentiful from the beginning of April. From May on throughout the summer months, jellyfish, &c., are generally abundant, and again after the autumn gales a drift of ocean forms sometimes appears, such as the crowds of Cupulita, Solmaris, Salps, &c., in November, 1901.

The tables (pp. 16 to 19) give the monthly distribution of the various

medusae, and other organisms noticed or taken in the townet.

#### PROTOZOA.

#### Noctiluca miliaris.

1899.—It was first seen on August 25th; very abundant until October 6th.

1900.—In September and October; especially abundant on September 23rd.

Ann. Rep. Fish., Ireland, 1902-03, Pt. II., App., I. [1905].

#### RADIOLARIA.

- 1899.—Shoals appeared in August and September.
- 1900.—Shoals in July, August, September, and October.
- 1901.—In August, September, and October.

#### SIPHONOPHORA.

## Velella spirans (Forskal).

- 1899.—In April a shoal of very small Velella were seen; some measured only g-inch in length.
- 1900.-A large shoal in June.
- 1901.—One large specimen in July.

# Muggiæa atlantica (Cunningham).

- 1899.-None seen.
- 1900.—They were fairly plentiful in the harbour from June to October; abundant in September.
- 1901.—A few in October and November.

#### Galeolaria sp.?

- 1899.—A number of these large Diphyes appeared in May; the swimming bells of some of the specimens measured an inch in length; the stem when extended was a foot long, and very bright scarlet at the end.
  - It swims very rapidly, jerking the foremost bell quite out of the water.
- 1900.—In April three specimens were taken and about a dozen others seen.
  In July, eight specimens on the 14th, three on the 16th, and several on the 29th; others seen.
- 1901.-On April 26th two large ones were captured, and others seen. A few were seen in May, one in June, and two on November 5th.

#### Cupulita Sarsi, Haeckel.

- 1899.—Some were taken in January; fairly common from May until November. The largest specimens taken were some in September, which measured nine inches in length, and with twelve pair of nectocalyces.
- 1900.—The first specimens were taken on April 22nd; plentiful from then until the middle of October; most numerous in September.
- 1901.—Fairly common from April to end of November.

  On November 5th, 6th, and 7th there were such shoals of them in the harbour that it would have been impossible to use a townet.

  The largest in this shoal had about twenty pair of nectocalyces, and a very long red stem.

#### Agalma sp. ?

1899.—A specimen of Agalma was taken on July 21st with tricornuate tentilla. It was in a shoal of cupulita.

#### ANTHOZOA.

## Arachnactis Bournei, Fowler.

1900.—In March and April these were fairly common in the townet. Some of them were kept in an aquarium; they settled down in the gravel on the bottom. One of these still survives (1903). It measures about an inch across the tentacles, which are about twenty in number; it is very sensitive, and draws itself down into its hole if disturbed. It is very like the anemone "Cerianthus."

1901.-None seen.

## Halcampa.

The larval form is often taken attached to Phialidium. Several were kept alive, and they attached themselves to stones in the aquarium, and lived there for more than two years.

#### CTENOPHORA.

## Pleurobrachia pileus, Modeer.

- 1899.—Common from April to November. In April and in August in such shoals that it was impossible to use the townet.
- 1900.—Plentiful from March until the end of October.
- 1901.—From March to the end of November; great shoals in June.

## Bolina norvegica (Sars).

- 1899.—Taken in the harbour from March to November; very abundant in May and August.
- 1900.—In April a few large ones appeared; some measured three inches in length. Very many in June and July; one was measured on July 16th, five inches long. They continued in the harbour until the end of September.
- 1901.—Common from March to November. The largest shoals appeared the first week of November; these were very large specimens. A heavy gale on the 11th broke them up, and only a few were seen after that date.

#### Beroe ovata, Eschscholtz.

- 1899.—A few Beroe appeared in June; common in August and September.
- 1900.—In June a few were taken; more numerous in July. Some very large ones were taken on July 14th and 16th. Common until the end of September; on September 5th some very pink specimens measured six inches in length.
- 1901.—One on February 21st; fairly common from May to November.

#### ECHINODERMATA.

#### Bipinnaria.

- 1899.—One specimen was taken on July 29th and another on August 1st.
- 1900.—Several seen in April and one in September.
- 1901.—On November 5th, 6th, and 7th great numbers were seen. These were large specimens, with the little red starfishes well developed. Pluteus nearly always in the tow net during the summer.

#### VERMES.

## Tomopteris onisciformis, Eschscholtz.

- 1899.—One specimen was taken in the townet on January 28th; a few during May, June, and July; common in August and September.
- 1900.—A few in March and April; common from June to October.
- 1901.—Taken in every month from May to November. On November 29th the townet was choked with Tomopteris and Sagitta.

# Sagitta bipunctata, Quoy et Gaimard.

- 1899.—Taken in January, and in every month from April to September, both included.
- 1900.—A few were taken in March, fairly common in April; and in June, July, August, and October.
- 1901.—Taken in February, March, April, and May; and again in September, October, and November. Very abundant on November 29th.

#### CRUSTACEA.

## Phyllosoma.

1899.—One specimen captured on May 8th.

#### MOLLUSCA.

## Ianthina communis, Lamarck.

1900.—On June 24th five small lanthina were found stranded on the rocks, and another on 26th. A number of Velella appeared in the harbour on same dates.

Four more Ianthina were found on July 5th and 6th; three large ones on August 4th. Some large ones were picked up on the strand at Rossbeigh, about twenty miles distant, and were probably part of the same shoal.

#### PTEROPODA.

# Limacina retroversa (Fleming).

1299.—None seen.

1900.—Plentiful all through June. On 15th the townet was completely choked with them.

1901.-None were seen.

# Clione limacina (Phipps).

- 1900.—Fairly common from June to October; very abundant on June 15th.
- 1901.—Taken in June and in November.

#### PHORONIDEA.

#### Actinotrocha sp. ?

1901.—One specimen was taken on October 30th.

#### TUNICATA.

## Thalia democratica—mucronata (Forskal).

1899.—A few specimens on May 8th and 9th; solitary specimens with brown "nucleus."

One taken on June 2nd.

Salpa runcinata—fusiformis (Chamisso-Cuvier).

1901.—On November 5th nine specimens were taken; others were seen, but swimming too deep to catch. A few taken on the 6th and 7th; then a large shoal appeared, both chains and solitary individuals. Some measured 3½ inches in length. The "nucleus" is reddish orange in colour, but looks white when seen at a great depth. The chains move very quickly, and are hard to catch, as they sink when touched. The longest chain captured numbered sixteen salps. Single specimens were easily preserved in formaline, but though various methods were tried, it was found impossible to preserve the chains intact. The shoal remained about the harbour until November 15th, when the weather became stormy, and they disappeared.

## Doliolum sp.?

1901.—One specimen taken November 29th.

## Oikopleura.

- 1899.—Generally common in the spring and early summer. Very common in May and June.
- 1900.—Taken in April and in June.
- 1901.—Common in April and May.
  On May 10th the tow net was quite choked with them.
  Taken also in August, September, and October.

#### PISCES.

# Fierasfer sp.?

1901.—On November 6th a specimen was taken, measuring 70 mm. in length.

Sometimes large shoals of certain animals appear in the harbour, and townetting is useless, as the net gets soon choked with them. This was the case on following dates:—

- 1899.—On May 16th and 17th, Pleurobrachia and Bolina. On August 21st, Pleurobrachia, Bolina, and Cupulita.
- 1900.—May 10th, Corymorpha and Oikopleura.
  May 30th, Corymorpha.
  June 15th, Limacina retroversa.
  June 20th, Bolina and Pleurobrachia.
- 1901.—On November 7th, such numbers of Solmaris that the water looked quite grey with them; Cupulita almost as numerous.

  November 29th, Sagitta and Tomopteris.

#### ANTHOMEDUSAE.

# Amphinema dinema (Péron et Lesueur).

- 1899.—A few specimens in May, June, and July; more plentiful in August and the first part of September.
- 1900.—Scarce in June; only one in July; a few in August and September.
- 1901.—A very young specimen taken on March 16th; one in May; one in August, and several in November.

# Cladonema radiatum, Dujardin.

This medusa has not been taken in the tow net. The hydroid is common in our bell-jars, and the medusa is very easily reared to the adult stage.

# Clavatella prolifera, Hincks.

A specimen occasionally appears in the bell-jars, but the hydroid has not yet been seen.

## Corymorpha nutans, Sars.

- 1899.—This medusa appeared in the middle of April; very abundant during May and June; a few in July, August, and September.
- 1900.—A specimen was taken on April 6th, and another on the 14th.

  In May it appeared in the bay outside Valencia Harbour, in such
  a vast shoal that the drift-net fishing was considerably interfered with. Very abundant inside the harbour during May; a
  few seen in June and in August.
- 1901.—Some specimens were taken on April 16th. In May there was an enormous shoal of Corymorpha, both inside and outside the harbour. The mackerel fishermen reported to us that the "dirt" was very bad, and that their nets were thickly coated with medusae.

The weather was then hot and the sea calm. Corymorpha was also abundant in June.

A solitary specimen was captured in October.

# Cytaandra arcolata (Alder).

- 1899.—On May 15th five specimens were taken, one with thirty-one tentacles. Two more were taken on May 20th, and two on August 10th.
- 1900.-None seen.
- 1901.—A large one captured on March 22nd with twenty tentacles, one on May 3rd with thirty-three tentacles, and a few in the last week of the month.

# Dipurena ophiogaster, Haeckel.

- 1899.—One specimen taken on May 20th, several in June, a few in July and in September.
- 1900. -Several were taken in May and in June, many in July, and a few in August.
- 1901.—One specimen on May 13th.

# Dipurena halterata (Forbes).

- 1899.—Several were taken in June, a good many in July. Most of them were fine adult specimens.
- 1900.—A few very small specimens in July, another small one in August, two in September, and one in October; all young stages.
- 1901.—One on November 15th.

# Ectopleura Dumortieri (Van Beneden).

- 1899.—Taken in every month from April to August, but never plentiful.
- 1900.—Taken from May 31st until October 15th; most frequently in July.
- 1901.—Very scarce from April to September. One abnormal specimen was noticed with eight canals and tentacles, and sixteen bands of nematocysts on the ex-umbella.

## Euphysa aurata, Forbes.

- 1899.—Very young stages in April; more frequently in May. Very scarce in June, July, and August.
- 1900.—Only one seen in April; a good many in May and June; very few in July and August.
- 1901.—A few taken from April to July.

# Hybocodon prolifer, Agassiz.

- 1899.—This medusa only occurs in the spring. One taken on March 31st with medusa-buds.

  Several on May 15th with buds.
- 1900.—Some taken on April 6th, and more in May. Several in May had well developed actinulae attached to the stomach, as well as medusa-buds on the tentacle bulbs.
- 1901.—A few seen in April; fairly common during May.

## Lar sabellarum, Gosse.

- 1899.—A very young stage was taken on March 1st. During March and April early stages—especially the first stage—were present. Scarce in May and June; fairly plentiful in July, August, and September.
- 1900.—None seen until the middle of June; very scarce through July and early part of August. On August 25th a considerable number were seen; then very scarce until the end of October.
- 1901.—One taken on February 20th, one in March, a few in April; then a few taken each month until the end of November.

#### Lizzia blondina, Forbes.

1901.—One adult specimen on February 14th.

## Margelis.

Specimens of Margelis were frequently taken in 1899, 1900, and 1901, but the species were not identified.

# Margelium octopunctatum (Sars).

- 1899.—Two specimens in February; few in April and May; all with medusa-buds. Scarce in June, August, and September.
- 1900.—Two were captured on March 5th; a good many seen and taken in the townet during March and April. More numerous in May, June, and July; very scarce in August and September.
- 1901.—On February 14th two were taken; some in April with ova; two in June; a few in September, and three in October.

# Sarsia gemmifera, Forbes.

1900.—On July 20th a specimen was captured with several medusa-buds on the manubrium.

Amongst several taken on July 25th was one with thirteen medusabuds. A few more were seen until the end of the month.

1901.-None were seen.

# Sarsia eximia (Allman).

- 1899.—Several were taken on June 20th and 22nd.
- 1900.—On May 14th one specimen was seen.

## Sarsia prolifera, Forbes.

- 1899.—A few on May 3rd; common during the last two weeks of June.

  A few in July and August.
- 1900.—Common in June and July; those in July had medusa-buds and ova.

  Very abundant in August.
- 1901.—None were seen.

#### Sarsia tubulosa (Sars).

- 1899.—Very common in the harbour in May and June; scarcer in July; none seen after August 1st.
- 1900.—Common in the harbour in May, June, and July.
- 1901.—A few during April and May; abundant in June; scarce in July; very few in September and October.

# Tiara pileata (Forskal).

1899.—One very young specimen in March; a few in April; abundant in May.

Some very large, brilliantly coloured ones on May 9th, measured 40 mm. in length. Young stages appeared towards the end of the month, and in June and July. Common in August and first half of September.

- 1900.—Abundant in May; some of these very large specimens. A few small ones seen in each month until the middle of October.
- 1901.—A few taken in April; very abundant in May, especially towards the end of the month. A good many seen in June; few in July, August, and September; common the first two weeks of November.

# Gemmaria implexa (Alder).

- 1900.—One taken on June 3rd with four tentacles, and one on July 21st with two tentacles and two bulbs.
- 1901.—On September 24th one specimen with two tentacles.
  On September 25th three were taken, each with two tentacles.

#### LEPTOMEDUSAE.

# Agastra caliculata (Hincks).

- 1899.—One on August 1st in the tow-net.
- 1900.—One on June 29th and another on July 20th.

# Dipleurosoma typicum, Boeck.

- A few were taken early in May; very abundant towards the end of the month, and very common until the middle of September. No very young stages were seen; nearly all were mature specimens. In July an attempt was made to rear the planulae of Dipleurosoma. They developed into very minute hydroids. These were kept alive for some time, but did not develop any further.
- 1900.—One specimen on May 24th.

  Very common in June and July; few in August and September.
- 1901.—Common from May 20th; very plentiful in June and July; none seen in August, and only a few in September.

  Hydroids were again obtained from planulae, but with same result as before.

# Euchilota pilosella (Forbes).

- 1899.—One damaged specimen on April 26th; a few in May and June; none in July; a good many seen in August.
- 1900.—A number of large specimens seen on May 28th. Common all through June. Some taken on June 13th measured 48 mm. in diameter. Some of these large ones deposited ova, which in two days developed into planulae, and on the third day settled down and developed into minute hydroids. It is rather like that of Dipleurosoma. The hydroids remained alive for some months, but did not grow or develop further. A few more specimens were taken in July, August, and the early part of September.
- 1901.—Very common all through May and June.

## Eutima insignis (Keferstein).

1900.—One small specimen on June 20th with only three tentacles. Several large ones on July 28th, and one on August 25th.

## Laodice calcarata, Agassiz.

- 1899.—Laodice was very common from May 1st, some very large specimens being taken. A few early in June, and some young stages in July; two of these had only four tentacles. Very abundant in August; large pink specimens, and a few early in September.
- 1900.—Some appeared in June; very few in the first part of July; more towards the end of the month; common in August and until the beginning of September.
- 1901.—A very small one on April 23rd; abundant in May; one in August; few in September; two in November.

## Melicertidium octocostatum (Sars).

1901.—One fine specimen on May 26th.

## Obelia nigra, Browne.

- 1899.—This is quite the commonest medusa in the harbour. It is almost always to be found from March until November; sometimes in such quantities that it is useless to tow-net.
- 1900.—Common from March to October.
- 1901 .- From April to November.

#### Octorchis Gegenbauri, Haeckel.

- 1899.—Three specimens were taken in September.
- 1900.—Three in July and one in August.
- 1901.—None were seen.

## Phialidium cymbaloideum (Van Beneden).

- 1899.—A few very small specimens taken in March and April. A number in May; many of them with Halcampa attached to them. Common in June and July. On July 17th the tow-net was full of very small ones. Abundant in August and until the middle of September.
- 1900.—Some very young stages in April. Fairly common in May; abundant in June and July; common in August, and scarce up to the end of October.
- 1901.—Very few in April; abundant the last week of May; common June and July; scarce every month until the first week of November.

## Phialidium temporarium, Browne.

- 1899.—Young stages in January, February, and March; very abundant in May and June; a shoal of very large specimens on June 9th; common July, August, and September.
- 1900.—A few very young stages in March and April; common until the middle of September.
- 1901.—Taken in every month from early in February until November; unusually numerous in May, when shoals of very large specimens made townetting impossible. They were taken until November

# Phialidium buskianum (Gosse).

- 1899.—This species is scarce, compared to the other two species. Two specimens in July; a few on August 25th and September 2nd; a number on September 9th.
- 1900.-None were seen.
- 1901.—A few specimens on September 16th.

## Polycanna forskalea (Péron).

- 1899.—A small one on May 10th measured 11 mm. in diameter; two small ones in August measured 13 mm. and 38 mm. respectively. Two specimens on August 14th and one on August 25th only 6 mm. in diameter. These specimens were all colourless.
- 1900.—One pink specimen on June 26th measured 45 mm. in diameter. It had 67 canals, 58 bulbs and tentacles, and one or two vesicles between every two bulbs.

Two small ones on June 4th were quite colourless; one measured 17 mm. in diameter, 34 canals, 50 tentacles and bulbs; the other 25 mm. in diameter, 50 canals, and 94 tentacles and bulbs.

- On September 1st twelve specimens were taken, all pink; some more on the 10th, and a large one on September 21st, also pink, measured 175 mm. in diameter, 63 canals (all to the margin), 84 tentacles and many bulbs, 8 to 12 vesicles between the tentacles.
- 1901.-- A small pink specimen on May 22nd with 80 canals and 22 tentacles. On November 5th one was seen; on 6th a large pink specimen was taken, measuring 102 mm. in diameter. thirty specimens seen on November 7th; too deep to catch. These were all pink, and from two to four inches in diameter.

Another on November 9th and two on the 15th; probably all part

of the same shoal.

The two captured on 15th measured, respectively, 120 mm. in diameter, 65 canals, 64 tentacles, one to three bulbs, and one to five vesicles between every two tentacles; and 75 mm. in diameter, 63 canals, 52 tentacles, one to two bulbs, and three or more vesicles between the tentacles. Both were pink in colour.

## Saphenia mirabilis (Wright).

- 1899.—One small specimen on July 4th, and a very young stage on August 21st.
- 1900.—One on June 15th and one on 26th. A few young stages early in July, and some large ones on 28th. One in August.
- 1901.—A very small one on April 26th was the only one seen.

#### TRACHOMEDUSAE.

# Aglantha rosea (Forbes).

- 1900.—A very small one on July 18th, two on the 19th, and two on the 26th of same month.
- 1901.—One only was seen on May 19th.

# Gossea circinata, Haeckel.

- 1899.—This medusa appears late in the autumn. Two were captured on September 2nd, and one on November 21st.
- 1900.-None seen.
- 1901.—A number seen on November 6th, 7th, and 8th, and a number also on 29th. One measured 16 mm. wide and 10 mm. high; two short tentacles between the groups.

## Glossocodon sp.?

1901.—On November 15th two medusae were captured, belonging to the genus Glossocodon. They had four long per-radial tentacles and four short inter-radial ones curled up round the outside of the umbrella. The medusa is quite colourless, and rather like an Octorchis in appearance.

On November 29th a number were taken in the tow-net, and several

more by hand; in all about thirty specimens.

Some of these were measured. The smallest, with eight tentacles, was 5 mm. in diameter; three others, measuring 12, 14, and 15 mm. respectively, had each four tentacles.

## NARCOMEDUSAE.

# Solmaris corona (Keferstein et Ehlers).

- 1899.—Only three specimens in August.
- 1900. A few in July; common all through August and September. One very small one measured 2 mm. in diameter, 14 tentacles, and 5 vesicles.
- 1901.—A few in July and September. Extremely abundant all through November.

#### ACRASPEDA.

#### Discomedusae.

#### Aurelia aurita, Linn.

- 1899. On February 20th an Ephyra stage of Aurelia was taken.

  A large one seen on May 25th; common all June; some measured

  10 inches in diameter.
- 1900. One Ephyra on March 5th and three on March 30th; no adult specimens seen.

1901.—Three Ephyrae on February 14th; one on March 16th. Three were kept alive in a bell jar for several weeks until they had nearly reached the adult form.

A number of large specimens in May; very abundant in June and

July.

# Chrysaora isosceles (Linn).

1899.—Two small ones on May 15th; others on 16th.

A number of large ones on June 13th; another large shoal on June 14th. Abundant all through June; a few in July and August. From one of these large medusa captured in June, a number of Scyphistomae were reared and kept alive until the following spring. In April they gave off a number of Ephyrae. One was successfully reared to the adult stage, measuring at its best

1900.—One seen on August 20th.

nine inches in diameter.

1901.—One seen on May 21st; common all through June and July.

# Cyanea Lamarcki, Péron et Lesueur.

1899.—A young specimen taken April 26th, with only seven lobes instead of the normal eight, and seven sense-organs. A very small one on May 9th, measuring only 16 mm. in diameter.

On August 4th a number of very large specimens, and a few on 8th and 11th of the same month.

1900.—A shoal of very large specimens on September 1st; a great many of them broken. Ova were obtained, and Scyphistomae reared.

1901.—A good many seen in June from two to five inches in diameter.

In September two damaged specimens were seen.

# Pelagia perla (Slabber).

1899.—A few seen in September and October.

1900.—On July 14th a small specimen, and another in September.

TABLE

# MONTHLY DISTRIBUTION OF PELAGIC ANIMALS

			1899.														
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October,	November.	December.			
Radiolaria,					-	_	_	_	-	×	×	_	-				
Velella spirans, .			-	_	-	×	_	-	-	-	-	-	-	_			
Muggiaea atlantica,		•	-	-	-	-	-	-	-	-	-		-	-			
Galeolaria sp. ?		. •	_ 1	_	-	-	×	-	-	-	-	-	-	-			
Cupulita Sarsi, .			×	~	-	-	×	×	×	×	×	×	×	-			
Agalma sp.?			-	-	-	-	-	-	×	~	-	-	-	-			
Arachnactis Bournei,			-	-	-	-	-	-	-	-	-	~	-				
Pleurobrachia pileus,			-	-	-	×	×	×	×	×	×	×	×	-			
Bolina norvegica, .			-	-	×	-	×	×	×	×	×	×	×	-			
Beroe ovata, .				-	-	-	-	×	-	×	×	-	-	-			
Bipinnaria, .	•		-	-	-	-	_	-	×	×	-	-		-			
Pluteus,	•		-	-	-	-	-	-	×	×	×		-	-			
Tomopteris onisciformis	i,		×	-	-	-	×	×	×	×	×	-	-	-			
Sagitta bipunetata,	•		×	-	-	×	×	×	×	×	×	-	-	-			
Ianthina communis,	4		-	-	-	-	-	-	-	-	-	-		-			
Limacina retroversa,			-	-	-	-	-	-	-	-	-	-	~	-			
Clione limacina, .				-	-	-	-	-	-	۵٠	-	-		-			
Thalia democratica - m	ueronat	π, .	-	-	-	-	Х	×	-	-	-	-	-				
Salpa runcinata-fusifo	rmis,		-	-	-	-	-	-	-	-	-	-	un-	~			
Doliolum,			-	-	-		-	-	-	-	-	~	-	-			
Oikopleura			-	_	-	-	×	×	-	-	-	-	-	-	1		
Noctiluca miliaria,			-	-		-	-	-	-	×	×	×		-			
Actinotrocha, .			-	-	-	-	-		-	-	-	-	-	-			
Phyllosoma, .	٠		-	-	-	-	ж	-	-	-	-	-	-	-			
Copepods,			1	1	>	×	Ж	×	×	×	×	×	-	-			

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# IN VALENCIA HARBOUR FOR 1899-1901.

	1900.												1901.													
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
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TABLE

MONTHLY DISTRIBUTION OF MEDUSAE IN

								18	99.						
			January.	February.	March.	April.	May.	June.	July,	August.	September.	October.	November.	December.	
						3			1	1					Ī
Amphinema dinema, .			-	-	-	-	×	×	×	×	×	-	-	-	
Corymorpha nutans, .	•		-	-	-	×	×	×	×	×	×	-	-	-	ı
Cytæandra areolata, .	•		-	-	-	-	×	-	-	×	-	-	-	-	ı
Dipurena ophiogaster, .	•	•	-	-	-	-	×	×	×	-	×	-	-	-	ı
" halterata, .	•	•	-	-	-	-	-	×	×	-	-	-	-	-	1
Ectopleura Dumortieri,	•	•	-	-	-	×	×	×	×	×	-	-	-	-	1
Euphysa aurata, .		•	-	-	-	×	×	×	×	×	-	-	-	-	1
Hybocodon prolifer, .	•	•	-	-	×	-	×	-	-	-	-	-	-	-	1
Lar sabellarum,	•	•	-	-	×	×	×	-	×	×	×	-	-	-	
Lizzia blondina,	4	•	-	-	-	-	-	-	-	-	-	-	-	-	
Margelis,	•	٠	-	-	-	×	×	×	×	×	-	-	-	-	ı
Margelium octopunetatum,	•	٠	-	×	×	×	×	×	-	×	×	-	-	-	ı
Sarsia gemmifera, .	•	•	-	-	-	-	-	-	-	-	-	-	-	-	ı
" prolifera, .	•	٠	-	-	-	-	×	×	×	×	-	-	-	-	
,, tubulosa, .	•	•	-	-	-	-	×	×	×	×	-	-	-	-	ı
Tiara pileata,	•	•	-	-	×	×	×	×	×	×	×	-	-	-	l
Gemmaria implexa, .	•	•	-	-	-	-	-	-	-	-	-	-	-	-	
t control collectors													}		
Agastra caliculata, .	•	•	-	-	-	_	_		-	×	-	-	-	-	
Dipleurosoma typicum, .  Euchilota pilosella, .	•	•	_	-	-	_	×	×	×	×	×	-	-	-	
Eutima insignis,	•	•	_	_	_	×	×	×	-	×	-	-	-	-	
Laodice calcarata,	•	•	_	_		-	-	_	_	-	-	-	_	-	
Melicertidium octocostatum,	•	•	_	_	-	-	×	×	×	×	×	-	-	- 1	
Obelia nigra,	•	•	_	_		-	-	-	-	-	-	-	-	-	
Octorchis Gegenbauri,	•	•		_	_ ×	×	×	×	×	×	×	~	-	-	
Phialidium cymbaloideum,	•	•		_		-	~	-	-	_	×	_	~	_	
tompomo misson	•	•	×		×	×	×	×	×	×	×	_	-	-	
2 2 1	•	•	_	×	×	-	×	×	×	×	×	-	-	-	
Polycanna forskalea, .			_			-	-		×	×	×	-	-	~	
Saphenia mirabilis,		۰		_		_	×	-	-	×		-	-	~	
Daymonia Lincomo,							-		×	×	-	-	-		
Aglantha rosea,			_	_	_	_			_						
Gossea circinata,			_	_			_	_	_	_	-	_	-		
Glostocodon sp.?			-	-		_	_	-	_	_	× _	_	_ ×		
Solmaria corona,		٠	-	-	-	~	-	-	-	×	-	-	-	-	
Aurolia aurita,			_	×	_	_	×	×	_	_		_	_	_	7
Chrymora isosceles,			-		_	_	×	×	×	_		_	_		
Cyanoa Lamarcki, .			_	_	_	×	×	_		×	_	-		_	
l'elagia peria,			_		_	_	_^				×	×	-	_	
											^	^			

II.

VALENCIA HARBOUR FOR 1899-1901.

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