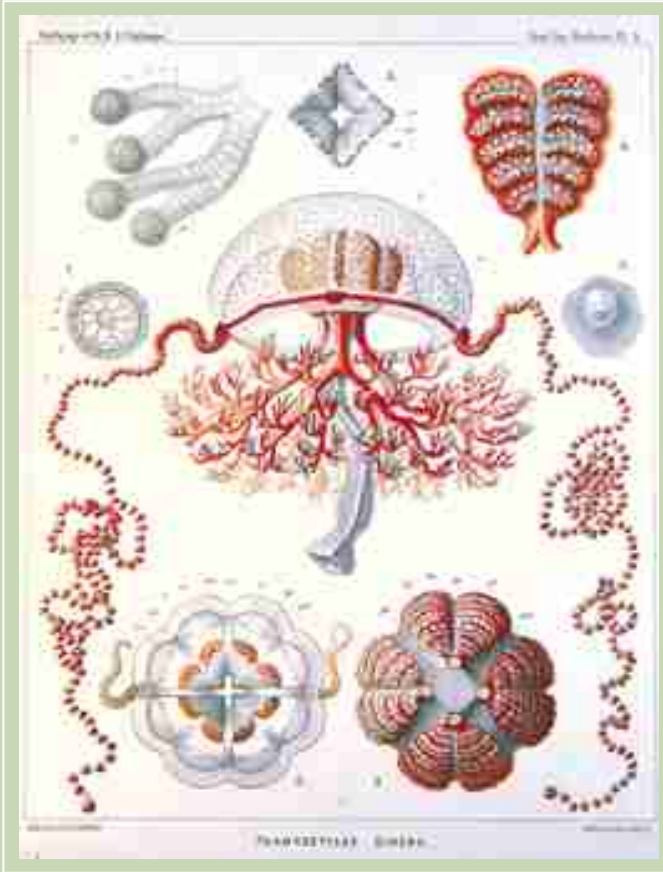


# MORE THAN 250 YEARS DRAWING MEDUSAE

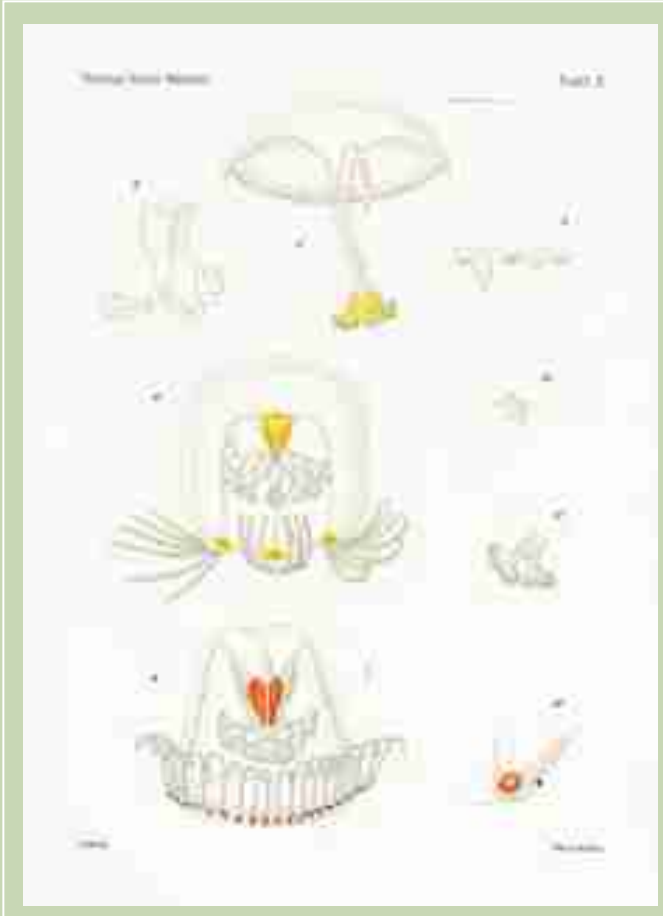
Jordi Corbera<sup>1</sup>, Francesc Pagès<sup>2</sup> & Josep Maria Gili<sup>2</sup>

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**Thamnostylus dinema.** Lithograph by E. Giltisch from drawings by E. Haeckel and A. Giltisch for Haeckel, *Report on the deep-sea Medusae dredged by HMS Challenger 1873-76*, (1887). Plate 1: 23 x 31 cm



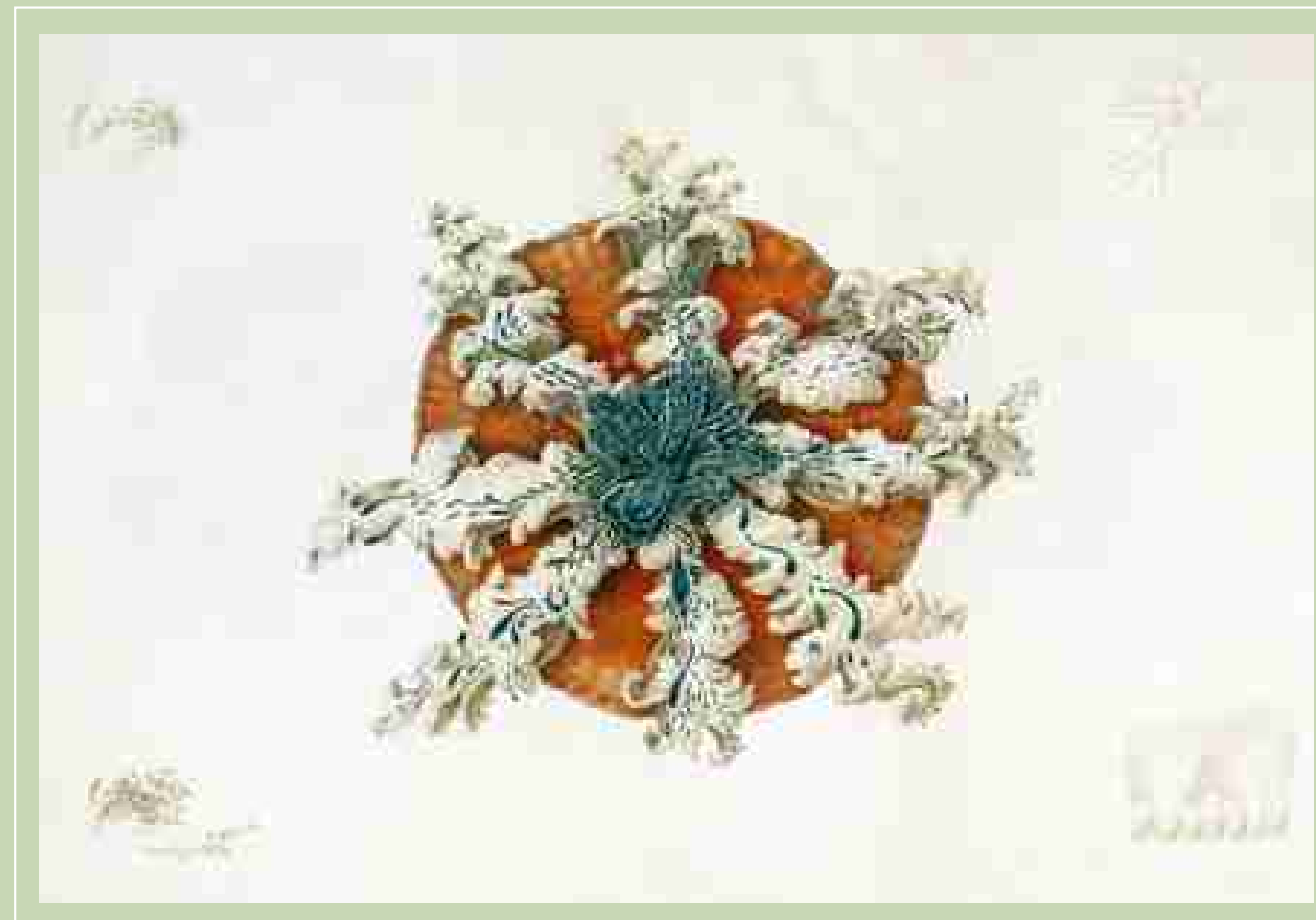
**Tropical Pacific Medusae.** Lithograph by B. Meisel from drawings by A.G. Mayer for Agassiz and Mayer, *Reports on the scientific results of the expedition to the tropical Pacific, in charge of Alexander Agassiz by the U.S. Fish Commission Steamer "Albatross", from August, 1899, to March, 1900, Commander Jefferson F. Moser, USN, commanding. III. Medusae*, (1902). Plate 2: 20 x 28.5 cm

Medusae are mostly pelagic animals that contain a high proportion of water (85-95%) in their bodies, thus they are delicate organisms that lose their shape out of the water. Medusae are known from the antiquity and Aristotle used the Greek word Cnidaria (=nettle) to describe these organisms.

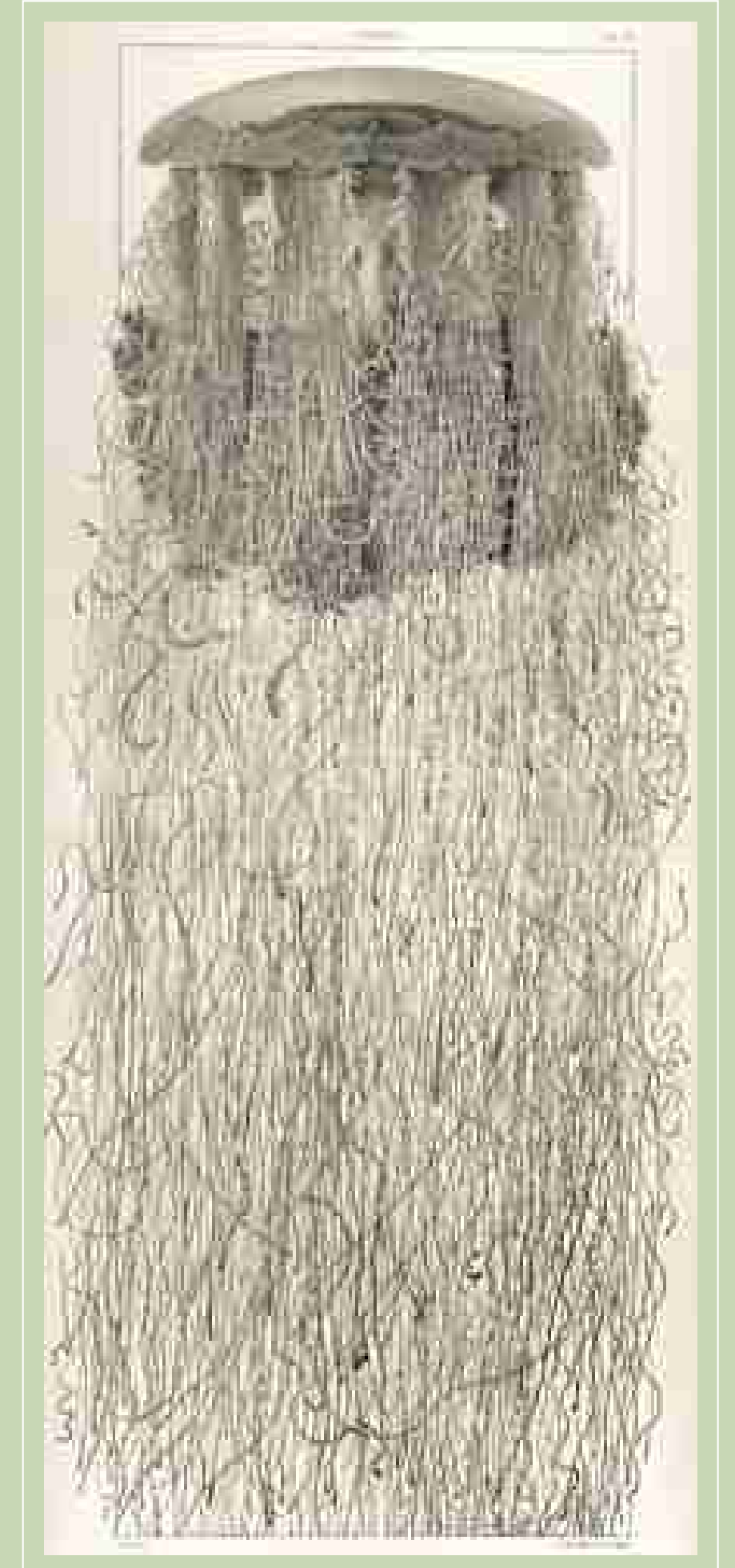
To draw jellyfish and other gelatinous organisms require good skills to recreate their natural shape if material is preserved. The advances on *in situ* observations and photography have improved much this task. The present degree of specialisation among scientists has created a need of professional illustrators. The increasing collaboration between scientists and drawers has resulted in excellent works, similar to those achieved by early naturalists that linked two fields of knowledge, art and natural sciences.

The first illustrations on medusae are probably due to Rev. W. Borlase who published in 1758 his "*Natural History of Cornwall*". Several works on medusae were published during the second half of the 18th century, some with bad figures, others with very useful ones as those published by Forskal (1775). In 1809, Péron and Lesueur published "*Tableau des caractères génériques et spécifiques de Meduses connues jusqu'à ce jour*" but unfortunately the plates prepared by C. A. Lesueur remained unpublished.

During the 19th century, after the explosion of lithography, the illustrated works on medusae proliferated, outstanding the following: "*Le Règne Animal distribué d'après son organisation, pour servir de base à l'Histoire Naturelle des animaux, et d'introduction à l'anatomie comparée*" by A. Milne-Edwards (1837), engraved by Schmels, Forget and Visto from drawings of Milne Edwards, Lesueur and others, "*Histoire Naturelle des Zoophytes; Acalephes*" by R.P. Lesson (1843), engraved by Corbie and Gousset from drawings of Prête, "*A monograph of the naked-eyed medusae*" by E. Forbes (1848) with lithographs of C.R. Bone and W.H. Bailey from drawings of the author, and "*Contributions to the natural history of the United States*" by L. Agassiz (1857-62) drawn mostly on stone by A. Sonrel, H.J. Clark and J. Burkhart. However, the great naturalist Ernst Haeckel stands out among all of them. He published "*Das System der Medusen*" (1879-80) and "*Report on the deep-sea medusae dredged by HMS Challenger during 1873-76*" (1881) both with lithographs from drawings by the author and A. Giltisch that probably show the most spectacular drawings of these animals.



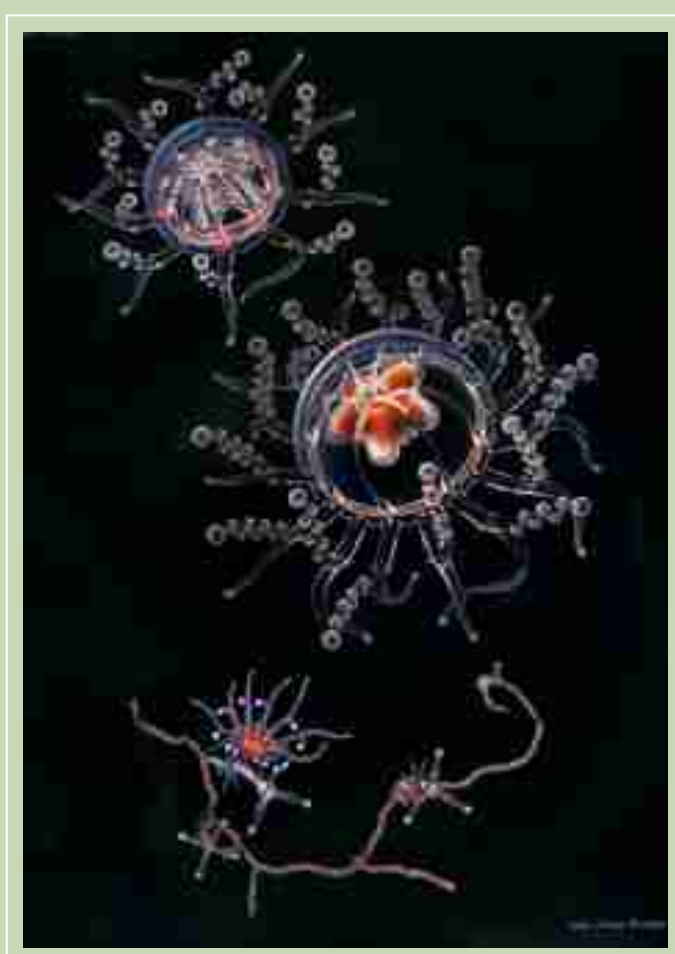
**Cassiopea andromeda.** Watercolor on vellum by C.A. Lesueur (between 1804-1813), 40.5 x 26.5 cm. Lesueur collections, Muséum d'Histoire Naturelle du Havre.



**Cyanea arctica Péron & Lesueur.** Lithograph drawn by A. Sonrel printed by L.H. Bradford, for L. Agassiz, *Contributions to the natural history of the United States*, vol. 3 (1860). Plate 3: 58.5 X 25 cm



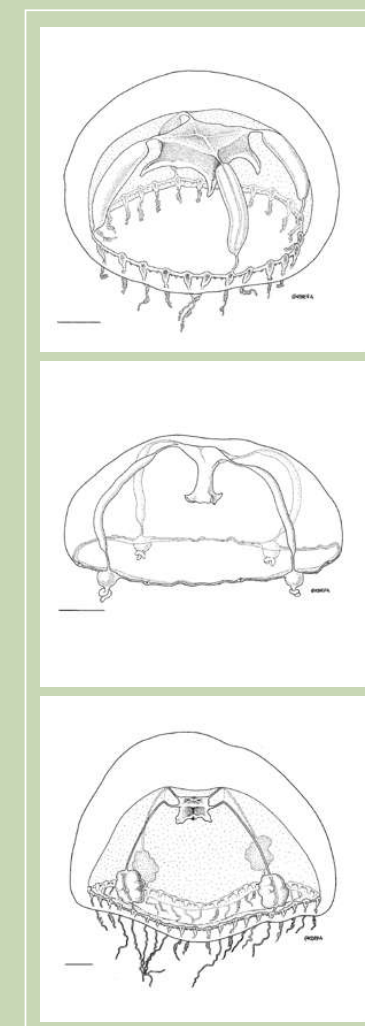
**Pelagic noctiluque (Pelagia noctiluca).** Handcoloured engraved by Forget from drawing by Milne Edwards printed by N. Rémond, for G. Cuvier, *Le Règne Animal distribué d'après son organisation, pour servir de base à l'Histoire Naturelle des animaux, et d'introduction à l'anatomie comparée* (Edition... par une réunion des disciples de Cuvier), Fortin, Masson & Cie., Paris (1837). Les Zoophytes by H. Milne Edwards, Plate 44: 24 X 16 cm.



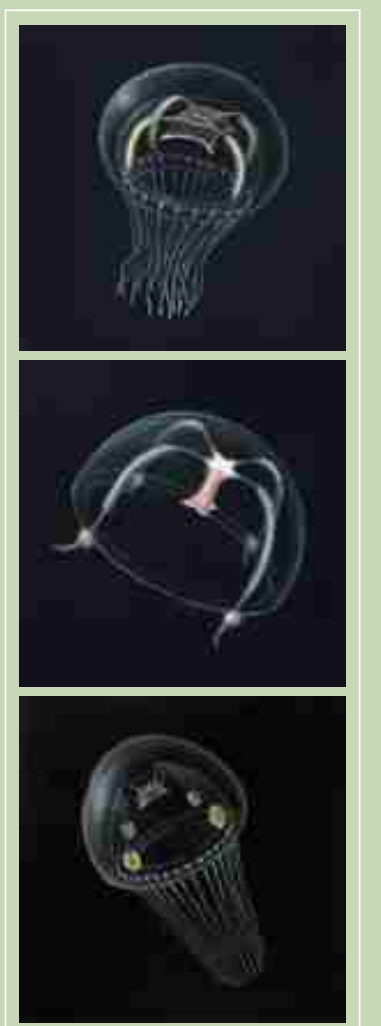
**Staurocladia portmanni.** Fotogravure from drawings by I. Richter, for A. Brinckmann-Voss, *Faune e Flora del Golfo di Napoli. 39. Anthomedusae/Athecatae (Hydrozoa, Cnidaria) of the Mediterranean*, Stazione Zoologica di Napoli (1970), Plate 6: 24.5 X 34.5 cm.

During the 20th century, most of the scientific publications on medusae only had black and white illustrations with a few exceptions like "Medusae of the world" by A.G. Mayer (1910) with drawings of the author and C. Kellner and "Anthomedusae/Athecatae (Hydrozoa, Cnidaria) of the Mediterranean" by A. Brinckmann-Voss (1970) with drawings of I. Richter.

At present, illustrations in scientific studies on zoology are mostly black and white line drawings that show the most important morphological characters that identify the species. On the contrary, divulgative works tend to catch the attention of readers by publishing colour figures of animals representing natural behaviour where the illustrators show the best of their art. For instance, next are shown the drawings of three new medusae species in two different styles; in black and white for a zoological publication, in colour for a divulgative magazine.



**Teclia recincolae, Barcino foixensis and Foersteria araiæ.** Line drawings by J. Corbera, for J.M. Gili et al., *Submarine canyons as habitats of prolific plankton populations: three new deep-sea Hydromedusae in the western Mediterranean*, Zool. J. Linnæan Soc., 125: 313-329 (1999).



**Teclia recincolae, Barcino foixensis and Foersteria araiæ.** Colour drawings by J. Corbera, National Geographic Magazine (Spanish edition) Vol. 5 Num. 4, (1999).