

FROM THE ARCHIVES

The History of Biological Exploration of the Bay of Villefranche



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Submitted July 7, 2014; Accepted July 15, 2014

Key words: History of science; naturalists; species discoveries; biodiversity; taxonomy.

Introduction

The Bay of Villefranche is a unique site. Protected by high hills, its relatively deep waters (in the outer parts 60–100 m) open out directly onto the mesopelagic depths of the N. W. Mediterranean Sea. These characteristics explain in large part the fact that it harbors a particularly rich marine life, especially with regard to planktonic forms. The early naturalists, François Péron and Claude Lesueur, contemporaries of Lamarck, were the first to describe new species from the bay finding meduse, ctenophores, pteropods (e.g., Fig. 1) and remarking on the diversity of forms (Lesueur 1813; Péron and Lesueur 1809). Fast forward to today—quite recently, another new species was described from the Bay of Villefranche, a dinoflagellate symbiont of radiolarians (Probert et al. 2014). Thus, for over 200 years the Bay of Villefranche has been a site of discovery of new life forms. It seems perhaps about time to review the discoveries and history of scientific exploration of the Bay. The total number of new forms described from the Bay of Villefranche (taxa presently considered valid) range in “age” from those recognized for 205 years to the one described a few months ago and numbers 103 by my count. The life forms described represent an

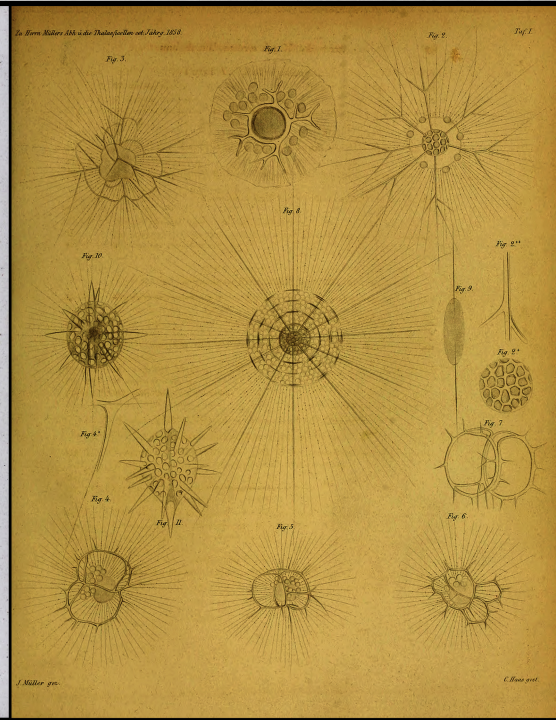
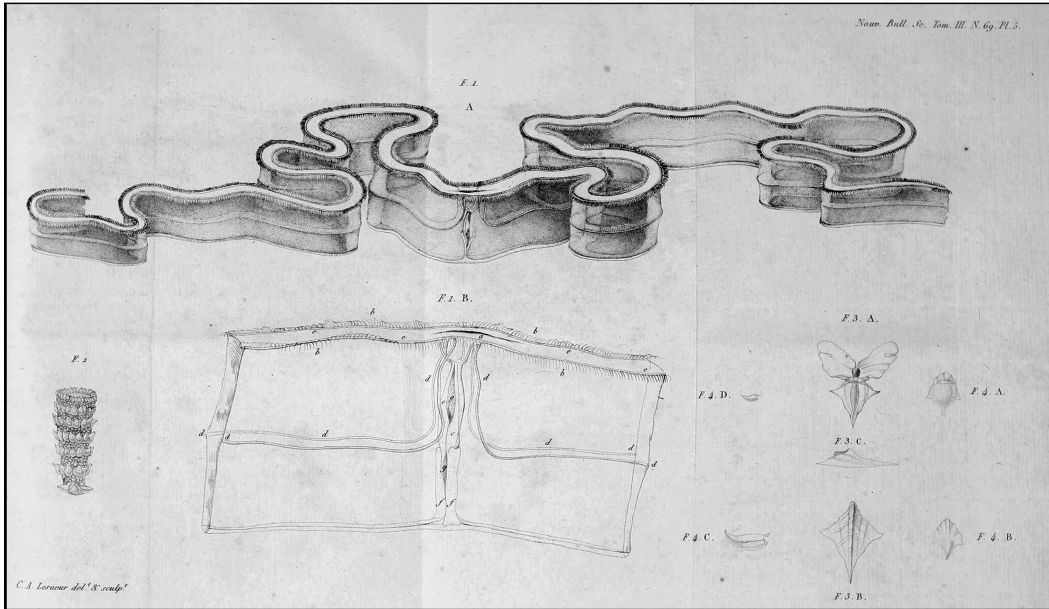
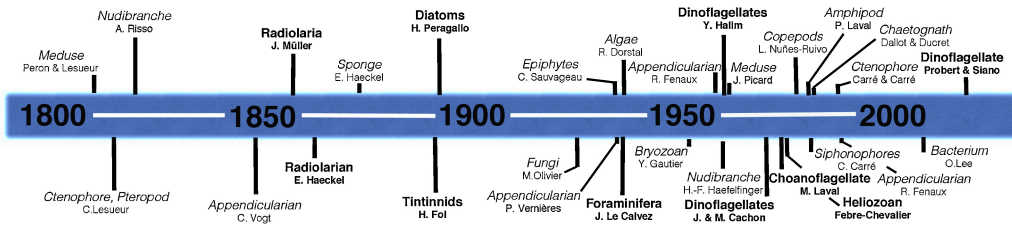
astounding variety of taxa, although clearly dominated by protists (Fig. 1). Here the history of this long biological exploration is outlined.

The Early Naturalists and Travelers

Following the explorations of Péron and Lesueur (Lesueur 1813; Péron and Lesueur 1809), the Bay was relatively ignored by biologists until the 1850's with exception of the description of two nudibranchs in 1818 by Antoine Risso of Nice, better known as an ichthyologist. Villefranche, as a site of exceptional diversity, was then ‘re-discovered’ by Karl Vogt of the University of Geneva during his stay in nearby Nice in 1851. His monographic treatise “Recherches sur les animaux inférieurs de la Méditerranée” (Vogt 1854) was based on work in a number of locales but did highlight the qualities of the Bay of Villefranche and included descriptions of a new ctenophore, an appendicularian, and a spectacular siphonophore (Fig. 1).

Vogt's text perhaps inspired the first protistological explorations, those of Johannes Müller who described several radiolarians and acantharians from the bay (e.g. Fig. 1). He recommended the site to Ernst Haeckel who later recounted (Haeckel 1893) his impressions from his visit in August–September of 1856:

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