

EARLY STRUGGLES AT THE MARINE BIOLOGICAL LABORATORY OVER MISSION AND MONEY

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ABSTRACT

In its first decades, the MBL Trustees and their Director, Charles Otis Whitman, often disagreed over the proper goals and justified expenditures for the MBL. This paper examines the nature of those struggles and the attempts at resolution, leading ultimately to Whitman's disappointment and resignation.

DISCUSSION

In 1884, before the MBL began, Edmund Beecher Wilson had spent a year in Europe after finishing his degree at Johns Hopkins. He wrote to President Gilman at Hopkins that a number of Europeans expressed surprise at the lack of interest in biology in America. So many organisms to be explored, so many resources to be developed. As Wilson wrote, "American zoology seems to me a good example of a prophet without honor in his own country" (Wilson, 13 April 1883). He continued to find it embarrassing that the United States lacked a permanent research facility. Baird's efforts at the United States Fish Commission had not succeeded in establishing it as a research center. There was room for an American laboratory, Wilson felt, and a need for one.

Naples offered a fine example of a biological research station, and for Wilson its superiority lay clearly in one simple fact: that "money has not been wanting, so that the management has been able to offer good facilities for work and has thus attracted the best workers" (Wilson, 13 April 1883). Of course, Dohrn deserves credit for supplying most of the money, and he worked continually to insure an adequate income at Naples. No one connected with the MBL offered as much as Dohrn did at Naples. Money remained a constant problem in the first decades of the MBL.

With only \$10,000 for the first year, the MBL opened in the rather shoestring manner described by Cornelia Clapp (Clapp, 1927). The Trustees expected their money to prove sufficient for four years, then they planned to secure a permanent endowment (MBL *Minutes*, 1888). Over the first few years, they reluctantly authorized adding modest new buildings as the demand grew. Still, by the years 1892-1894 the MBL experienced a balanced budget, with the help of careful planning and cutting of extras, but 1894-1895 brought the beginning of serious crises (MBL *Minutes*, Annual Reports).

These financial troubles reflected more fundamental disagreements as well. The Trustees had not specified the goals of the MBL, for example, preferring instead to leave the definition to the first director. But they disagreed even about who should be that first director. Those Trustees from the Women's Education Association in Boston, who had supported the Annisquam precursor of the MBL, revealed their expectations from the beginning. Presumably they envisioned the MBL as following along more or less the lines that the Annisquam Laboratory had pursued, concentrating mainly on fairly introductory teaching. Thus they held that the director of

the MBL should be B. H. van Vleck, who had served as assistant at Annisquam. Other Trustees, including the Annisquam director Alpheus Hyatt, saw the advantages of selecting a nationally recognized figure like William Keith Brooks or Charles Otis Whitman, either of whom would bring major changes to the lab. In the end the Trustees chose Brooks, then Whitman. They left unspecified such major decisions as the relative roles they expected teaching and research to play, though the intention was always to pursue a balance of both unless the Fish Commission established a successful research center, in which case the MBL would focus on teaching classes (MBL *Minutes*, 1888, p. 38).

Beyond this basic agreement to pursue both teaching and research, however, the Trustees evidently never reached an agreement about the ways and degree to which they expected the MBL to expand. Thus, when Whitman insisted on making the expenditures he regarded as necessary to supply a legitimate laboratory for a growing number of people, the Trustees felt that Whitman spent too much. They sought to limit his spending (Whitman to Conklin, MBL *Minutes*, Annual Reports). Obviously, such disagreement led to fundamental struggles over who would control the MBL.

Whitman's contributions to the Annual Reports reflect his ambitions. The goal at the MBL should be "to organize one of the strongest and most productive biological stations in the world" which would allow the United States to make a good showing when compared with such successful places as the Naples Station (Whitman, Annual Report, 1890, p. 22). The MBL should remain a laboratory for all biology, including morphology and physiology, zoology and botany, marine and more general biology, and it should be a place for both independent research and teaching. For Whitman, the MBL promised to become the premier American biological laboratory. Yet he recognized the accuracy of Wilson's emphasis on money. He saw the need to obtain an endowment for the lab, ideally a half-million dollar endowment to establish a full-time, year-round biological station. His great hopes met continued obstacles, and the ideal of a permanent center for both research and teaching remained unrealized (Whitman, 1891, 1893a, b, 1894, 1898).

Success amplified the problems beginning in 1894 and 1895. Attendance had increased dramatically, from 15 in 1888 to 199 by 1895, and financing had become ever more difficult. To Whitman expansion seemed desirable, both for students and for researchers. He urged more building in 1895 to provide more room. And he continued to urge the need for solid financial backing. It looked, in 1895, as though that backing might materialize. Miss Helen Culver of Chicago evidently intended to give a half-million dollars each to the MBL and to the University of Chicago's biology program. Whitman headed both, and he worked hard to obtain the dual gift. A letter from Whitman to Miss Culver clearly indicates that part of the gift was originally intended for the MBL:

The Marine Biological Laboratory has already become an intercollegiate centre for research and instruction. Some over twenty colleges and universities are now contributing to the support of the Laboratory by subscriptions to rooms and tables, and no less than eighty-five institutions were represented in our membership last summer. The national character of the Laboratory is the chief glory and that I am sure will be wisely guarded in the foundation you have bestowed.

Instead, for unknown reasons, Miss Culver gave the entire million to the University and none to the MBL (Whitman, to Miss Helen Culver, 20 December 1895). The goals for the MBL remained elusive.

Whitman continued to support growth and expansion, but in 1896 the Trustees as a whole said, in effect, "no more." Yet the Executive Committee of the Trustees

approved the expansion and expenditures. With Whitman's personal financial backing, the group finally achieved agreement, but the seed of crisis had been sown (Lillie, 1944, pp. 43-44; Trustees, 1897; Clarke *et al.*, 1897). The disagreement brought the first confrontation, with a major split in the Board of Trustees. In late 1896 and early 1897, the Trustees met and agreed to keep the lab open only if they could raise \$2000 to cover costs. They met in Boston, and they did not even consult Whitman. Further, they postponed announcing the 1897 session until they had met and made financial decisions about whether to continue; the uncertainty cut into that summer's attendance. The annual meeting at Woods Hole in August 1897 was very tense, with major disagreements about how to run the lab. The meeting brought new by-laws and election of new Trustees, with only two of the original Boston Trustees remaining on the Board. As Whitman reported to Dohrn, he was particularly delighted to have gotten rid of the "old maids" from the Women's Educational Association who had no real connections with biology (Whitman, Naples, 2 September 1897). The new Board reflected greater national representation and greater biological commitment.

Yet financial troubles continued despite the greater ideological support from the Trustees. In 1898, Whitman wrote to his friend and supporter Edwin Grant Conklin that "I am having many sleepless hours over the lack of funds to pay bills this year. I have about resolved to take from my own poor pocket to settle the \$600 unsettled salaries. I have reason to hesitate to do this, for I do not see the way out of it. Were it not for the many good hearts behind me, I should feel decidedly blue" (Whitman to Conklin, 1 November 1898). Indeed, a friend reported that Whitman had suffered very deeply from the troubles since the MBL was "the very apple of his eye" (Whitman, Chicago, 20 May 1898).

Whitman articulated ever more strongly that the United States needed a biological laboratory and that it should be a permanent station with a full endowment. Such a station must have national cooperation and must therefore remain financially and ideologically independent of any one group. Permanence, national support, cooperation, and independence—these became recurrent themes for Whitman (Whitman, Annual Report, 1890, pp. 22-23; Annual Report, 1892, pp. 29-36; 1893; 1901; to Morgan or Wilson, 1902). Without money, those ideals remained out of reach. At one point, however, the financial goal seemed nearly attainable.

In 1900 came a concerted effort to achieve wider national support from colleges to underwrite at least the cost of operations. Following the Naples model, the MBL did not try, in the early years, to extract more money from the individual researchers but appealed instead to institutions for more permanent support. Some, such as Alexander Agassiz, who had supported Naples and other efforts felt they had "thrown away enough money on seaside Laboratories" and balked at donating money to yet another attempt to build an American laboratory (Agassiz, 30 May 1888). Other colleges and institutions did continue to provide support. Finally in 1901 and 1902 two major offers came to relieve the Trustees of the bulk of their financial problems. The first came from four wealthy businessmen and was presented through President Harper of the University of Chicago. Whitman strongly supported their proposal and felt that it would secure the laboratory's financial independence and make realistic the establishment of a permanent research station (Whitman to Conklin, 1901 and 1902). Yet, though only two of the four men lived in Chicago, the Trustees felt that accepting the offer would give too much power to one university and that the lab would therefore lose the very independence and national character it sought. Whitman felt unsupported in the ensuing sometimes bitter

struggles, and he lamented to Conklin that though he felt confident that things would work out, presumably in favor of the plan, "I often regret that there has been such a strong sectional feeling in the East. It is *not* very pleasant to have ones motives impugned, and I confess, at times, to have found the suspicion against Chicago University and its men almost beyond endurance" (Whitman to Conklin, 2 March 1902). The fate of the Chicago plan remained unclear until a second offer came shortly thereafter leading to the rejection of the first proposal as such.

The second offer came from the Carnegie Institution and went through numerous revisions. The group most strongly supporting the Carnegie proposal included Wilson, who saw this as the chance to secure financial stability and to make over the MBL into a research lab more like his old ideal at Naples (Cattell, 1902, pp. 529-533; Lillie, 1944, p. 57; Whitman, MBL-Lillie, 8 and 13 October 1902). Wilson came into direct conflict with Whitman on this issue. It became clear to Whitman that while some of the Trustees, such as Conklin, remained firmly behind him, most had never really fully accepted his ideas for the lab. As Frank Lillie recorded later in his history, Whitman found it disillusioning to realize that there were "few who held with anything like equal intensity his belief that the ideals of organization for which he had fought were of value far superior to any degree of financial security" (Lillie, 1944, p. 60). Whitman feared that the Carnegie people would absorb the MBL as just another one of their own departments. He feared the proposed move to solely research and the loss of instruction which Wilson applauded. He suggested somewhat facetiously to Conklin that "Perhaps we had better abandon every class at Woods' Holl, and all compensation for *services*, and revert to the old-time ideal of a pure research station. I feel half inclined to do this, and so let everyone see by actual experience the result" (Whitman to Conklin, 7 January 1904). Obviously, he did not expect happy results.

Eventually, after much discussion and revision, a plan was developed by which the Carnegie Foundation supported the MBL for three years with \$10,000 per year, matched by a gift from three of the Trustees—including some of the support offered in the first Chicago proposal—but the MBL Trustees and Corporation retained control of the lab. As an admirer put it later, Whitman had held firm for independence.

Reportedly has Woods Hole declined riches when by its acceptance there is only the remotest possibility of interference with this indispensable independence. All of the proffers fell upon deaf ears. The nightingale may be captured, but it can never be made to breed by the huntsman nor be made to sing in confinement. It must live in its own peculiar habitat, and this is found for scientists in Woods Hole. In this country we are searching for heroes in productive science, but "the birds that may sing may seem to avoid the golden cage" [The Resignation, 1908, p. 382].

Nonetheless, Whitman felt defeated and exhausted and withdrew from the MBL. His assistant, Frank Lillie, took over the directorship (MBL Annual Report, 1908, pp. 8-13).

Whitman looked upon the struggles of 1902 as growing pains of sorts, in which the impatience of some had led to near disaster. As he put it, the MBL had begun like an organism, with only seventeen "ids in its protoplasmic body—two instructors, eight students, and seven investigators (all beginners). The two instructors could be likened, with no great stretch of the imagination, to two polar corpuscles, signifying little more than that the germ was a fertile one, and prepared to begin its preordained course of development." The original incorporators, Whitman said, served as

sponsors and left the group of tadpoles to follow its own course of development. The germ thus underwent various cleavages and took shape. Founded on the principles of cooperation and independence, it sought to embrace all of biology. It even grew and advanced to the tadpole stage, Whitman reported. But some members wanted to shed their tails and become frogs, and to undergo that change immediately. They forgot the golden motto of development, proceed slowly. Fortunately, the supporters made it possible for the tadpoles to advance without loss of their heads as well as their tails. But do not forget the lesson, Whitman urged, for "There is a work before you of far greater magnitude and importance than perhaps any of us can now realize, waiting only for the energy and means to grapple with it. In everything that stands for the upbuilding of this laboratory, let us have cooperation with soul and zeal to make it effective and triumphant" (Whitman, address, 11 August 1903). Clearly, Whitman did not fully agree with Wilson that the success of the Naples Station lay "simply" with money.

Permanence, national support, cooperation, and independence have been achieved at the MBL to a remarkable extent. Yet as Whitman stressed, both money and a great deal of dedicated work by a large number of people remain necessary to maintain such enduring marine laboratories as the MBL and the Naples Station.

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