

or hulls of ships, on buoys, piles, or lower timbers of wharves, or on other structures, is sufficient to suggest the putting-out of solid bodies for the purpose of catching spat and originating experiments that develop into a system. In older times such a method was passed on from father to son from generation to generation, and in later times by historical transmission.

Italy has had a method of oyster-culture since about 100 B.C. According to Pliny, the artificial propagation of oysters was first carried out in the salt water of Lake Avernus by Sergius Orata, a Roman knight, who soon made a fortune thereby. On one occasion, becoming involved in a lawsuit for trespass, his counsel, Lucius Crassus, declared that if expelled from the lake his client would grow oysters on the roof of his house—no doubt a gross exaggeration for the time, but a remark that would cause little surprise at the present day.

England as a home for native oysters in great quantity and superior quality was frequently referred to by early Roman authors; it has been even hinted that it was the oyster that attracted Caesar to the coasts of Britain.

France, Holland, and Belgium have, since the middle of last century, developed the most painstaking methods of modern times, and some other countries of western Europe have likewise carried on culture of the common European species (*Ostrea edulis*).

Japan for some two hundred years has attained to considerable success with a different species (*O. cucullata*).

The United States began the cultivation of the common oyster of the Atlantic Coast of America (*O. virginiana*) independently of European countries and a few years before the modern methods were instituted in France. The oyster-fishery is now the most important fishery of the United States and greater than that of all other countries combined. Seed-oysters are shipped to the Pacific Coast and planted in suitable bays of California, Oregon, and Washington. The common oyster of the Pacific Coast of America (*O. lurida*) has also been cultivated in more recent time.

Canada possesses natural beds of the same two species as the United States, and of late years has made some progress in their cultivation. Intensive culture is all the more necessary here because of the more northerly position, the restricted areas, and the sparse seeding of the natural beds. The high attainment of the industry in the United States should spur Canada to great efforts in developing this fortunate natural possession. The coasts of Eastern New Brunswick, of Prince Edward Island, and of Eastern Nova Scotia have many warm shallow-water bays adapted to the requirements of the eastern species, so well known to the fresh-oyster trade, and seed from these regions as well as from Eastern States grows rapidly to marketable size in British Columbia waters. The eastern oyster is already cultivated at Crescent in Boundary Bay, at Ladysmith in Oyster Harbour, at Horseshoe Bay near by, and at Esquimalt. The western oyster is cultivated at Crescent and at Ladysmith.

In the early days people were content to gain a ready and comfortable livelihood, and culture was pursued on a small scale and generally in a half-hearted spirit. Progress was slow. A feeling of satisfaction with existing conditions, the self-assurance that accompanies little experience, and the assumption of special knowledge, set views, and unimproved machinery were some of the retarding causes.

With the progress of time, the growth of population, increased demand, the development of a commercial spirit, desire for wealth, competition, investment, formation of companies, etc., oyster-culture, like other means of production, came to be applied more earnestly. Calculation, adaptation, improvements, additions, inventions, were made and information sought from other districts and other countries. Along with a general advance in education, the improvement of implements, machinery, and transport did much to overcome prejudices. A deeper insight and a broader comprehension were gained, and men began to awaken to the possibilities of future developments and to cultivate a spirit of enterprise in great undertakings.

The fisherman, culturist, and capitalist have done much in the carrying-out of methods when once instituted, but the direction of the most important advances has always been indicated by the trained investigator. The routine work of mechanical operations can be applied by the masses, but the grasping of complex problems and the methods for their analysis can be handled only by men accustomed to research and that have the leisure to think. It requires the marshalling of all related sources of knowledge as well as the power of their application. Methods must conform to the mode of development, the structure and manner of life of the oyster; must take account of the physical conditions of the environment, must be applicable from local resources,