COMPARISON OF HAEMOGRAMS FROM RESISTANT AND SUSCEPTIBLE EUROPEAN FLAT OYSTERS, *OSTREA EDULIS*, EXPOSED TO THE PARASITE, *BONAMIA OSTREAE*

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In the past 24 years, two protozoans *Marteilia refringens* and *Bonamia ostreae* induced a sharp decline in the production of European flat oysters, *Ostrea edulis*, in French farming sites. Several prophylactic measures permitted to maintain the rearing activity in subtidal areas but the remaining occurrence of the two parasites led to develop genetic selection programmes. Thus, some selected strains of European flat oyster, *Ostrea edulis*, were produced. To study the cellular defence mechanisms involved in the resistance of the flat oysters against *Bonamia ostreae*, a comparison of haemograms was performed between susceptible and resistant animals. Total and differential hemocyte counts in laboratory reared stocks of Europan flat oysters (Quiberon and Palavas) susceptible to infection caused by the parasite *Bonamia ostreae* were compared with hemocyte counts in selected resistant oysters (F_0xF_1 and F_1xF_2) exposed to the same challenge, an intrapericardic injection of purified parasites. Total hemocyte counts showed differences between the different groups. Thus, cellular density of the hemolymph was less important in selected oysters than in susceptible animals. Moreover, differential hemocyte counts indicated that large hyalinocytes were less numerous in resistant animals than in susceptible oysters. A significant correlation between the resistance status to the bonamiosis and the hemocyte counts was detected in this study.