



Mediterranean Sea, in our study area it showed a remarkable poor assemblage of molluscs under both a qualitative and quantitative point of view.

These findings are consistent with previous data on *Posidonia oceanica* held by other institutions which reported a general sofference of the plant in this environment.

This sofference may be due to:

- an unsuitable bottom, the reefs are mostly rocky and *Posidonia* grows in small sedimentary areas producing a pattern of patches and not a meadow;
- low light, because of deep water (the sampled patches were at -25 metres) and the turbidity of the water because of the estuary of the Tevere river a few kilometers northwards.

The foliar stratus mollusc assemblage, never sampled with this accuracy in the area before, works well as indicator of the *Posidonia oceanica* overall health.

Key words: *Posidonia oceanica*, Mollusca, Mediterranean Sea.

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Growth of the fan shell *Pinna nobilis* Linnaeus, 1758 in the north and east of Tunisian Coast

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The variability in absolute and relative growth of *Pinna nobilis* along the Tunisian coastline was investigated. Five populations of *P. nobilis* were sampled, three from northern and two from eastern Tunisia. The specimens were aged and ten morphometric characters were measured on each individual. To test if differences existed in absolute and relative growth patterns among the different populations, an information theory approach was followed. For absolute growth, von Bertalanffy, Gompertz, the logistic and the power models were fitted in combination with three assumptions regarding inter-population differences in absolute growth patterns: no differences, differences among all five populations or just between northern and eastern populations. The assumption of common absolute growth parameters among all five populations had the greatest support by the data, whereas the assumption of different growth patterns among all five populations had no support. Von Bertalanffy growth model and the power model were both equally supported by the data (while Gompertz had considerably less support and the logistic model had no support), and thus it may not be definitely concluded whether *P. nobilis* grows asymptotically or not. The *P. nobilis* populations of the Tunisian coastline had a slow growth and up to an age of ~ 9 years their shells were smaller than from all other reported populations in the Mediterranean. For relative growth, apart from the classical allometric model aX^b , relating the size of a part of a body Y to another reference dimension X, more complicated models were used in combination with the three abovementioned assumptions regarding inter-population differences. Those models, of the form $\log Y = f(\log X)$, either assumed breakpoints in the relative growth trajectories or non-linearities. For most morphometric characters, the classical allometric model had no support by the data and more complicated models were necessary. In most cases, different relative growth either among all five populations or between the northern and eastern population groups was supported by the data. Further investigation is needed to relate the morphological differences observed among different populations of *P. nobilis* to environmental factors.

Key words: *Pinna nobilis*, growth, Tunisia, information theory approach.