

## ABSTRACT

The study describes inter- and intra- specific comparisons of growth, reproduction, mortality and foraging in intertidal gastropods Nerita versicolor Nerita tessellata living in two habitats differing in their degree of exposure to wave action. At both sites N. versicolor lives farther from the sea than N. tessellata and is less affected by wave action.

Growth parameters and mortality are estimated from monthly measurements of tagged individuals. N. versicolor has a larger asymptotic size, and faster absolute growth rate than N. tessellata at both study sites. At both sites, N. tessellata spends less time foraging than N. versicolor. Both species grow faster at the protected site than they do at the exposed site, and both species spend more time foraging at the former site than at the latter.

Theoretical growth curves calculated for both species at both sites from the von Bertalanffy growth equation show a close fit to curves drawn from monthly growth increments. In both species, specimens transferred from the protected site to the exposed site grew faster than those resident at the exposed site, but slower than those resident at the protected site; and specimens transferred from the exposed site to the protected site grew slower than those resident at the exposed site.

N. tessellata is smaller at sexual maturity than is N. versicolor at both study sites. The species reach sexual maturity at a similar age at the protected site; but at the exposed site N. tessellata is older at sexual maturity than is N. versicolor. Both species are smaller at sexual maturity but take longer to reach maturity at the exposed site than at the protected site. N. versicolor has a higher reproductive effort than N. tessellata at both sites. For both species, reproductive effort is higher at the exposed site than at the protected site, and this may contribute to the slower growth rate at the former site. Both species breed throughout the year, but peak spawning occurs during the rainy season. Recruitment in both species is continuous, with peaks that correlate with spawning peaks. Fecundity of N. versicolor is lower than N. tessellata at both sites. Both species have higher fecundities at the protected site than at the exposed site. Mean egg size is larger for N. versicolor than for N. tessellata at both sites.

Mortality of N. tessellata is higher than that of N. versicolor at both sites. Mortality of N. versicolor is higher at the protected site than at the exposed site, but the mortality of N. tessellata is similar at both sites. For both species, mortality is higher on larger size classes than on smaller size classes at the exposed site. In contrast, mortality is higher on smaller size classes than on larger size classes at the protected site.