
**MASSIVE LOGGERHEAD NEST PREDATION BY GHOST CRABS IN BOAVISTA ISLAND
(CAPE VERDE): IMPLICATIONS OF THE ABSENCE OF LARGE PREDATORS**

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The impact of nest predators on sea turtle hatching success is highly variable depending on predator abundance and also on interactions among different predators. Food web connectivity usually makes it difficult to understand predator-prey interactions and develop efficient conservation strategies. In the Cape Verde archipelago there is an important nesting area for loggerheads where ghost crabs are the only described nest predator. We have studied the impact of ghost crabs on loggerhead nests on this threatened population as well as the efficiency of several management practices to reduce this impact. One hundred nests were incubated on the beach under 5 different treatments: 20 were incubated in their natural locations but fully protected from egg predation, 20 were partially protected by placing a 1 m² plastic mesh over the nests, 20 were left unprotected in the same location, 20 were relocated on the beach and left unprotected and 20 were relocated to a hatchery without crabs. All eggs were counted at the beginning of the study and information on predator attacks, incubation duration, the number of predated eggs and hatching success were recorded for all nests. Ghost crabs (*Ocypodes cursor*) were the only nest predators. Seventy-nine of 80 nests located outside the hatchery were attacked by crabs and this happened mainly at the end of the incubation. Only 5 of 80 nests were attacked during the first 15 days of incubation and the first attack occurred on average at day 40 of incubation. In all unprotected nests the crabs robbed an average of 48 eggs per nest (mean clutch size = 87). For that reason, it is necessary to record clutch size at the oviposition in order to accurately estimate that parameter and hatching success. Embryo mortality averaged 67.5% in unprotected and non-relocated nests and 17.8% in fully protected and non-relocated nests. Ghost crabs directly predated or caused the secondary death of 50% of eggs. Relocation on the beach to selected areas decreased mortality less than 10%. Relocation to a hatchery significantly reduced mortality to an average of 35.4%, suggesting the existence of factors associated with relocation that affect embryonic survival. The protection with a 1 m² flat mesh over the nest reduced mean mortality from 67.5% to 40%, not fully protecting eggs from ghost crab predation and having a similar effect on hatching success to relocation to the hatchery. Nest predation by crabs in Cape Verde, in the absence of other larger predators, is very high. The loggerhead turtle population from Cape Verde is facing extinction because of severe environmental impacts and illegal activities. Improving hatching success by reducing nest predation can be very important to slow down the collapse of the population. The results of this study recommend nest relocation to a hatchery on beaches of high nesting activity and full nest protection against crabs on islands or beaches with very few nests.