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Maternal transfer of metals to the eggs of loggerhead turtles and green turtles in Turkey

Yakup Kaska¹, Fikret Sar¹, Can Yılmaz², Ouz Türkozan², Ümit Divrikli¹, Ayten Höl¹, Aslıhan Kartal¹, Latif Elçi¹

1. Department of Biology, Faculty of Arts and Sciences, Pamukkale University, Denizli, Turkey

2. Department of Biology, Faculty of Arts and Sciences, Adnan Menderes University, Aydın, Turkey

Loggerhead and green turtles make 3-5 nests with two weeks intervals and prefer to nests on their natal beach. Because of these general characteristics of sea turtle nesting behaviour, we have investigated the metal levels in the eggshells of green turtles that collected on Akyatan beach and loggerhead turtle on Dalaman beach. Three to five samples were collected during the hatching season on both beaches. These samples were air dried in the field and left in an oven until a constant weight was reached. The metal (Fe, Cu, Mn, Ni, Zn, Cr, Pb, As and Cd) concentrations were analysed by atomic absorption spectro-

metry. Two readings from each specimen were taken and the averages of these values were calculated. The Fe, Cu, Mn, Ni and Cr were found to be statistically different between to species but no statistical differences found for Zn, Pb, As and Cd. The concentrations of Pb, Cr, As and Cd were quite low in all samples. These values show that adults eliminating metals by transferring to the egg shells and the amount of the transfer is slightly higher in pre-laid nests within the season when the samples were analysed temporally.