

LEARNING MATERNAL CARE: A POSSIBLE EXAMPLE IN BOTTLENOSE DOLPHIN (*TURSIOPS TRUNCATUS*)

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Since 1993, a behavioural research program on maternal care in bottlenose dolphin has been conducted in two different Italian Delphinaria placed in Rimini and Cattolica. Aim of this study was to investigate, in a comparative way, maternal behaviour of primiparous dams versus multiparous ones in order to explore the possible importance of learning maternal skills from experienced females in developing parental cares.

Each facility housed two females (a nulliparous one and a multiparous one) with their calves and, at the Rimini's Delphinarium, two males. Focal animal sampling method was applied to systematically monitor the behaviour of each female over twelve months after parturition. A specific ethogram organized into five main categories was used for the data collection. Selected mother-calf displays including general interactions and physical contacts were analysed for the purpose of this study. A total number of 466 hours of observation were recorded.

Both nulliparous females had the opportunity to observe the parturition of the other females before to gave birth to their own calves. No statistical differences in the five behavioural categories were found between the multiparous and nulliparous females in each facility over the study period. Swim in association and contact behaviour were the most relevant activities seen within mother-calf displays. Their values were similar between females housed in the same environment, but comparatively different among the two facilities. These results may be related to the presence of other individuals in the Rimini's pool which led the nulliparous female to enforce her bond with the calf through proximity. On the other hand, nursing behaviour was completely similar between facilities and subjects.

In conclusion, this work suggested that experienced females may represent a powerful mechanism of learning for the first-time mother while social contest may be crucial in determining the intensity of some behavioural elements related to maternal care.