



## **35th Annual Symposium of European Association for Aquatic Mammals**



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**Return no later than 08 January 2007 to:**

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Presentation: Poster

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Audiovisual requirements: No

### **ABSTRACT:**

#### **TARGET BODY AREAS OF PHYSICAL AGGRESSIONS IN *TURSIOPS TRUNCATUS***

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Physical interactions represent an important component of the communication system of bottlenose dolphins. The sensitiveness of their skin is well known, as is the existence of specific areas of the body preferentially involved in contact activity. The aim of this study, complement of a wider research project on intra-communal agonistic behaviour in *Tursiops truncatus*, was to establish whether a

similar predominance of specific targets on the body can be observed when physical aggressions are concerned. For this purpose, five subjects (adults: 1,1; young: 2,1) were focally observed at the Rimini Delfinario (Italy) from April to October 2005, through a total of 780 systematic observations lasting 15 minutes each (total 195 hours). After having divided the body of the dolphin in seven areas in a schematic manner, the software Observer was applied to estimate the involvement of the different parts of the body as target of three offensive behaviours: "biting", "rostrum hitting" and "tail hitting". The results clearly showed that the primary target of bites was the tail (69,9%). On the other hand, the head was subject to the most tail hitting (65.0%). As a matter of fact, the caudal portion of the body, being the nearest part to the chasing animal and thus the most accessible, was the most offended. At the same time when the fleeing dolphin tries to defend itself, its most likely aggressive response appeared to be a tail hit right on the head of the aggressor that is rapidly swimming behind it. Regarding rostrum hitting, the most rare aggressive behaviour recorded during the study (only ten times in total), it seemed to be preferably exhibited by the hierarchically strong adult female and primarily directed towards the wide region of the flank (70.0%). In summary, despite the age or sex of the animals, the investigation showed a clear specificity in the involvement of particular body parts depending on the type of aggression.