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Whistle repertoire of captive bottlenose dolphins, Tursiops truncatus

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The whistle repertoire of bottlenose dolphins has been poorly described in the literature, thus little information is known to support the hypothesis that whistles are used by dolphins to communicate. In this study, whistles emitted by four captive bottlenose dolphins housed in two aquaria in Mexico City were recorded to analyze the whistle repertoire and whistle emission rate for each aquarium. The whistle repertoire was described using human and automated categorizations. Results show that whistle emission rate and the whistle repertoire are both larger for the two dolphins that are more active and which are housed in the same aquarium. As for whistles shared in the repertoire of both aquaria, these are very few, probably because dolphins of the two aquaria were captured in different oceans and are of different ages, besides of the different activities that dolphins can perform in each aquarium. Additionally, all four dolphins could use similar whistles for a specific activity, like "swimming", while different whistles were used for another specific activity, like "observing". These results show that dolphins use whistles selectively, supporting the hypothesis that whistles may be used to communicate information for particular situations. [Work supported by PAPIIT, UNAM & CoNaCyT]