

## The use of water for the grooming behaviour in the European badger (*Meles meles*)

El uso de agua para el comportamiento de acicalamiento en el tejón (*Meles meles*)

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The European badger *Meles meles* (Linnaeus, 1758) is a mustelid who spends much of his time grooming itself or other clan members (allo-grooming). During self-grooming a badger will focus on the stomach, legs, tail and face while sitting down or laying on one side (Stewart & Macdonald 2003). However, badgers are limited in their degree of contortion so the areas that are out of reach, such as shoulders and rump, are covered during allo-grooming sessions (Macdonald *et al.* 2000). A thorough grooming ensures the elimination of the parasites and helps to share scent among the different group members (Lebourgeois 2021). To our knowledge, the use of water for grooming in this species has not been reported before, and therefore, this note describes the observation of grooming behaviour of European badger in water troughs.

Camera-traps were deployed in 28 small artificial water troughs targeting small game species, located in an agricultural area of the southern of the Cordoba province, Spain. The cameras were deployed from June to August during three consecutive years (2020-2022), in an area where the mean maximum temperature is over 35°C in summer. In every water trough, the cameras were working between 15 and 18 days.

In five different water troughs, ten records of grooming were recorded, five of which show evident of water use for grooming (the animal was on the water trough and its fur was wet, Figure 1), and in five cases the animals were grooming close to water probably after bathing (video: <https://youtu.be/x8Jx-rULbdI>). All the records were registered at night, with a temperature between 17 and 30 °C (mean value: 24.9 °C). These records in tropical nights (>20°C) suggest that this behaviour could

also favoured thermoregulation. Interestingly, three photographs of badgers sitting on the artificial water troughs were also recorded, which could be also related to bathing and thermoregulation.



**Figure 1.** Grooming behaviour of European badger in an artificial water trough.

### References

- Lebourgeois F. 2021. Long-term monitoring of activities of badgers (*Meles meles* L.) in a broadleaved forest in France. *European Journal of Wildlife Research*, 67: 8. DOI: [10.1007/s10344-020-01447-1](https://doi.org/10.1007/s10344-020-01447-1)
- Macdonald D.W., Stewart P.D., Stopka P. & Yamaguchi N. 2000. Measuring the Dynamics of Mammalian Societies: An Ecologist's Guide to Ethological Methods. Pp. 332-388. In: L. Boitani & T.K. Fuller (eds). *Research Techniques in Animal Ecology: Controversies and Consequences*. Columbia University Press, New York.
- Stewart P.D. & Macdonald D.W. 2003. Badgers and Badger Fleas: Strategies and Counter-Strategies. *Ethology*, 109 (9): 751-764. DOI: [10.1046/J.1439-0310.2003.00910.X](https://doi.org/10.1046/J.1439-0310.2003.00910.X)

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