

# Only in Captivity? An Interaction between Two Threatened Chelonians, an Asian Giant Tortoise (*Manouria emys*) and a Malaysian Giant Turtle (*Orlitia borneensis*)

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Photographs by the author

On 9 November 2019, I observed an interesting interaction between two chelonians at a private zoological facility in Bali, Indonesia. These animals were being maintained in a large outdoor enclosure with a naturalistic pond and adequate understorey and mid-storey vegetation. The Asian Giant Tortoise or Asian Brown Tortoise (*Manouria emys*; Fig. 1A) is a critically endangered species found in Indonesia, Malaysia, Myanmar, Thailand, Vietnam, India, and Bangladesh (Kundu et al. 2018; Platt et al. 2018; Choudhury et al. 2019). The Malaysian Giant Turtle or Bornean River Turtle (*Orlitia borneensis*; Fig. 1B) is an endangered freshwater species found in Indonesia and Malaysia (Asian Turtle Trade Working Group 2000; Knotkova et al. 2005).

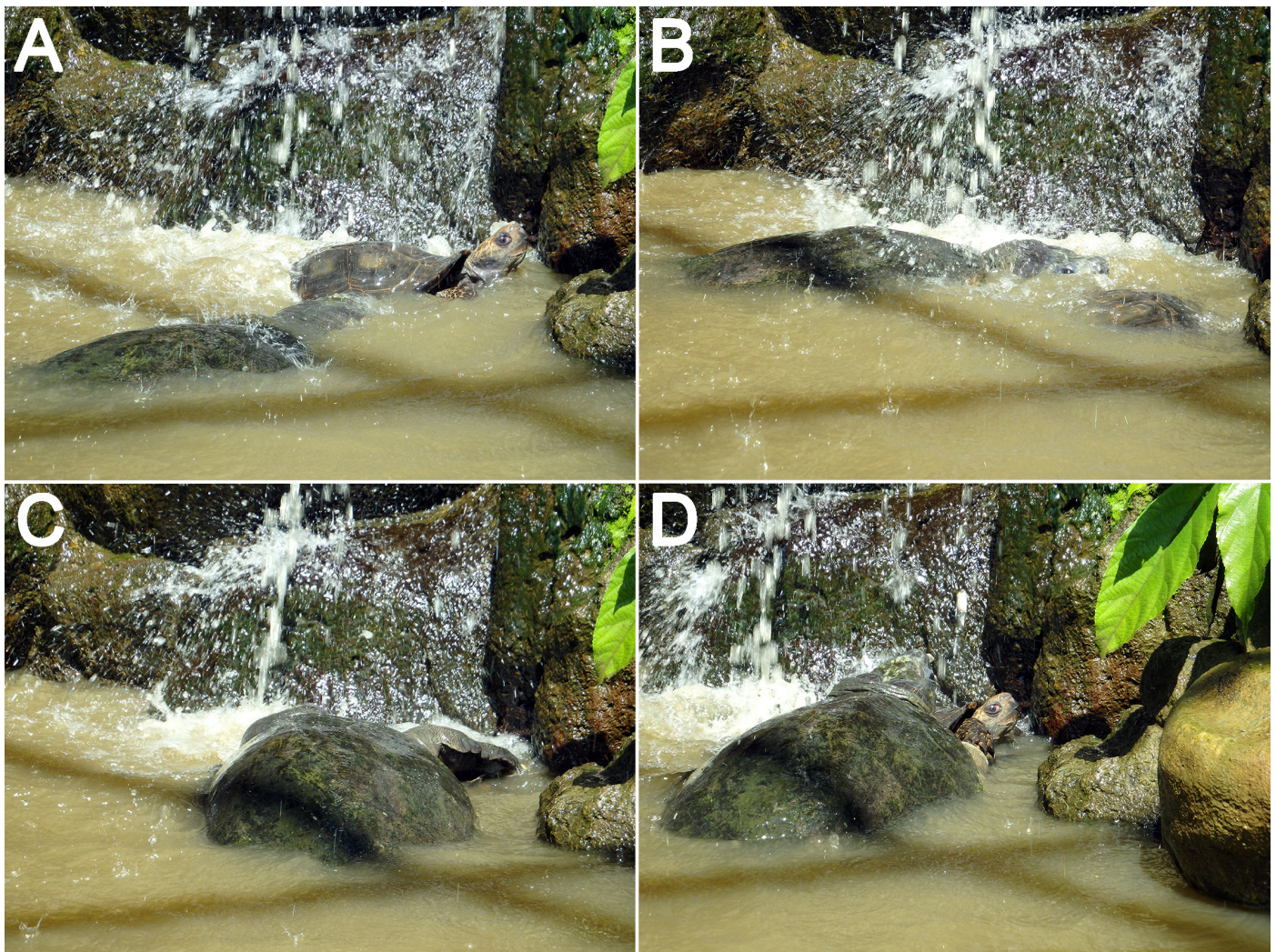
The interaction occurred around midday when ambient temperatures were about 32 °C. An Asian Giant Tortoise had retreated to the pond inhabited by a Malaysian Giant Turtle. After some time, the tortoise ventured to a section of

the pond edged by a waterfall and rock boulders. A Malaysian Giant Turtle emerged from below the water surface within centimeters of the tortoise (Fig. 2A) and proceeded to push the tortoise against the edge of the pond with its head, neck, and front limbs (Fig. 2B), during which the tortoise was occasionally fully submerged. This continued for at least 10 minutes until the turtle became more intrusive, attempting to climb on top of the tortoise. On several occasions, the turtle placed its front limbs on top of the tortoise's carapace and head, fully submerging the tortoise (Fig. 2C). This continued for at least 15 minutes, during which the turtle also placed its head on the carapace of the tortoise (Fig. 2D). The interaction concluded when the tortoise managed to move along the edge of the pond away from the turtle.

I do not know whether the observed behavior represented aggression or play behavior. Although the natural range of both species overlap, such an interaction would be unlikely



**Fig. 1.** An Asian Giant Tortoise (*Manouria emys*) seeking refuge from ambient heat in a pond (A) and a Malaysian Giant Turtle (*Orlitia borneensis*) breaching the surface of the water (B) at a private zoological facility in Bali, Indonesia.



**Fig. 2.** Interactions between a Malaysian Giant Turtle (*Orlitia borneensis*) and an Asian Giant Tortoise (*Manouria emys*). The turtle emerged from the water (A) and pushed the tortoise against the edge of the pond (B). The turtle placing its front limb over the tortoise, submerging its head (C). The turtle placing its head on the tortoise's carapace (D).

unless both animals were confined to the same enclosure. Nevertheless, the observed behavior was of interest in that it occurred over an extended period and could have resulted in the tortoise drowning.

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