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**Natural History Notes. *Varanus salvator macromaculatus* (Southeast Asian Water Monitor).  
Leech parasitism  
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**VARANUS SALVATOR MACROMACULATUS (Southeast Asian Water Monitor). LEECH PARASITISM.** *Varanus salvator macromaculatus* has a widespread distribution in north-eastern India, continental Southeast Asia, Hainan (China), Greater Sunda Islands (except Java), and offshore islands (Ziegler and Vences 2020. *Der Zool. Garten* 88:31–50) and are never found far from water (Bennett 1998. *Monitor Lizards: Natural History, Biology, Husbandry*. Edition Chimaira, Frankfurt am Main, Germany. 352 pp.). Ticks are the only reported ectoparasites of monitor lizards

(e.g., Auffenberg and Auffenberg 1990. *Bull. Florida Mus. Nat. Hist. Biol. Sci.* 35:1–34) and herein I report an observation of the presence of a leech on a wild *V. s. macromaculatus* in Singapore.

On 3 December 2022, at 0827 h, an adult *V. s. macromaculatus* was observed near the bank of the Kallang River, in Bishan-Ang Mo Kio Park, Singapore (1.3648°N, 103.8352°E; WGS 84; 18 m elev.) with a large leech attached to its back (Fig. 1A). The leech appeared to be attached to an old wound near the lizard's mid-dorsum between the shoulder blades slightly posterior to its arms (Fig. 1B). It was not possible to catch the lizard to inspect the leech, but the Asian Buffalo Leech (*Hirudinaria manillensis*) is found in other areas in Singapore (Chan and Lau 2022. *Nat. Singapore* 15:e2022060). This leech species attains a relatively large size from 4 to 5 inches, is dark brown in color, and has a black middorsal line (Tubtimon et al. 2014. *ZooKeys* 452:15–33) and based on the size, coloration, and known distribution of this leech I surmise it was an Asian Buffalo Leech.

Leeches are commonly known ectoparasites aquatic reptiles including turtles (Readel et al. 2008. *Copeia* 2008:227–233; McKnight et al. 2021. *Ecol. Evol.* 11:10936–10946) and crocodylians (Moser et al. 2014. *J. Arkansas Acad. Sci.* 68:163–166), but to my knowledge this is the first report of ectoparasitism by a leech in *V. s. macromaculatus*, although Asian Buffalo Leeches have been reported to feed on other reptile species (Lai and Chen 2010. *Leech fauna of Taiwan*. National Taiwan University, Taipei, Taiwan. 118 pp.; Jeffery et al. 1990. *Jet. Vet Malaysia* 2:39–41). Interestingly *V. s. macromaculatus* is known to feed on leeches (Yu et al. 2021. *Anim. Biol.* 72:27–37) and this is a case of role reversal between the lizard and leeches.

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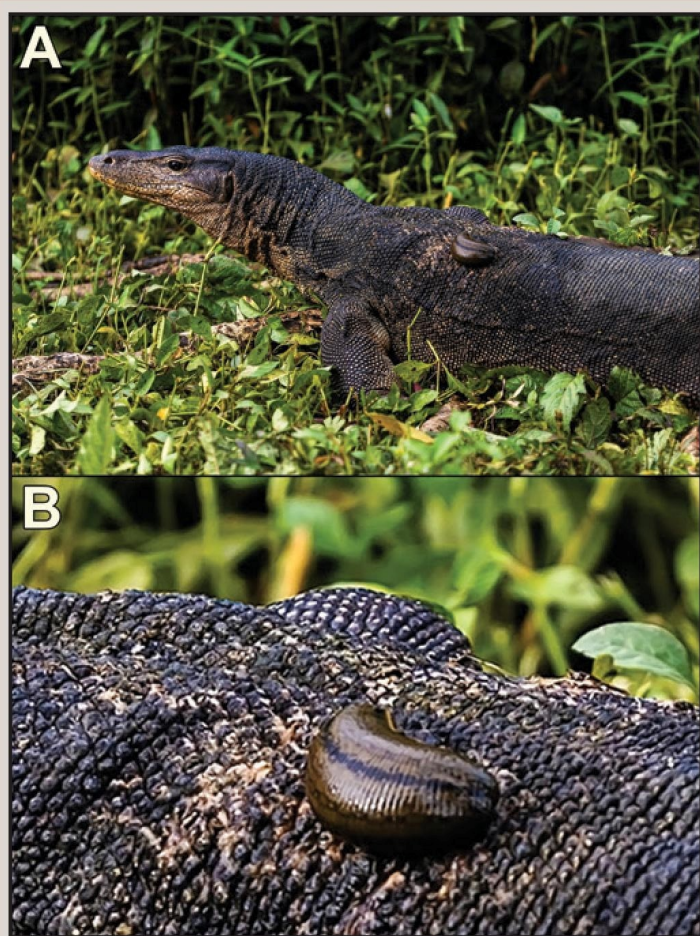


FIG. 1 An adult *Varanus salvator macromaculatus* with a leech on its back (A), feeding on an old wound (B).

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