

Trends of Attacks on Humans by Protected Crocodiles Along Rivers and Associated Habitats in Borneo Island

ABSTRACT

In the human-crocodile conflict, crocodile attacks on humans pose a serious threat and are becoming a complex conservation challenge in many countries. This study investigates the status and trend of crocodile attacks on humans in Malaysian Borneo (i.e., Sabah and Sarawak) where rivers and estuaries are inhabited by protected crocodile populations. Results show that between 2001 and 2020, a total of 205 attacks were reported which equals an average of nearly 11 cases per year. The number of attacks in Sarawak is estimated to be between 135 to 164 cases which is twice ($p < 0.05$) as high as in Sabah (70 cases), indicating a more serious human crocodile conflict in the former. In Sabah, most of the attacks (81% or 57 cases) ($p < 0.05$) were in the districts of Lahad Datu, Kinabatangan, Tawau and Sandakan while in Sarawak (82% or 60 cases) ($p < 0.05$) were in Miri, Sri Aman, Kuching and Betong. Almost 80% (173 cases) of the victims were men between the ages of 30 and 39 who were fishing (42%) ($p < 0.05$) or bathing (27%) before the attack suggesting that such activities are risky and should be avoided in areas inhabited by crocodiles. Fatality rates of crocodile attacks have been increasing in recent years (i.e., 2015 - 2020) with an average of 10 cases per year. Therefore, control over the number of crocodile populations, especially the large-sized and dangerous individuals, needs to be implemented in high-risk areas. More research is needed to understand the capacity of their habitats to support optimal populations density and minimize conflicts with humans.