Scientific Note

Amphithemis vacillans Selys, 1891 (Odonata: Libellulidae): new addition to the Odonata fauna of Meghalaya, Northeastern India

Amphithemis vacillans Selys, 1891 (Odonata: Libellulidae): nueva incorporación a la fauna de odonatos de Meghalaya, noreste de la India

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Abstract. *Amphithemis vacillans* Selys, 1891 is reported for the first time from Meghalaya, Northeastern India. The authors recorded a male individual from the forest of Byrnihat, located in Ri-bhoi distict of the state on November 23, 2017. The current sighing revised the distribution of this species in India being previously known from Assam and West Bengal.

Key words: Biodiversity; conservation; dragonfly; Eastern Himalaya; first record.

Resumen. *Amphithemis vacillans* Selys, 1891 es registrada por primera vez en Meghalaya, noreste de la India, con base en un macho observado en el bosque de Byrnihat, ubicado en el distrito de Ri-bhoi el 23 de noviembre 2017. Se revisó la distribución actual de esta especie en la India, siendo conocida previamente de Assam y del oeste de Bengala.

Palabras clave: Biodiversidad; conservación; Himalaya oriental; libélula; primer registro.

Odonate (dragonflies and damselfies) diversity of Meghalaya was studied in both protected and non-protected areas by several authors until recent time (Prasad and Ghosh 1984; Lahiri 1987; Srivastava and Sinha 1995; Mitra 1999; Bora and Meitei 2014; Acharjee and Karzee 2016; Bora 2019; Bora *et al.* 2020). The first record of Odonata from the state was made by Selys and Hagen in 1853 (Lahiri 1987). Lahiri compiled as well as studied the available materials from the state and reported 147 species and subspecies. Prasad and Ghosh (1984) extend the existed list by adding one more fauna to the state. Later, in 1999, Mitra studied and compiled his study with the entire past works and reported 148 species from the state. However, recently Bora *et al.* (2020) recorded three new additions to the odonate fauna of the state extending the list to 151 species. The present paper provides the first record of *Amphithemis vacillans* Selys, 1891 to Meghalaya from Byrnihat, Ri-bhoi District, India.

The authors made an opportunistic survey on November 23, 2017, to study odonate

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diversity in non-protected areas of Ri-bhoi district, Meghalaya. We recorded one male *A. vacillans* perching on vegetation near a hill stream inside the widespread forest located adjacent to Dehal Catholic Church, Byrnihat (26°01'16" N / 91°52'22" E, 214 m altitude). We managed to take only two images of the dragonfly before it finally escape into the nearby forest. While searching the literature of the species, the authors realise that the dragonfly is not previously recorded from the state. The dragonfly is historically known to occur in the forests of Sivasagar District of Assam (Fraser 1936), in Hasimara Dooars (Fraser 1936) and Jalpaiguri District (Dawn and Basu Roy 2016; Dawn 2021) of West Bengal in India. This species is also known to occur in Myanmar and Bangladesh. The present paper not only reported the first existence of *A. vacillans* from the forest of Meghalaya but also revised the known distribution of this species.

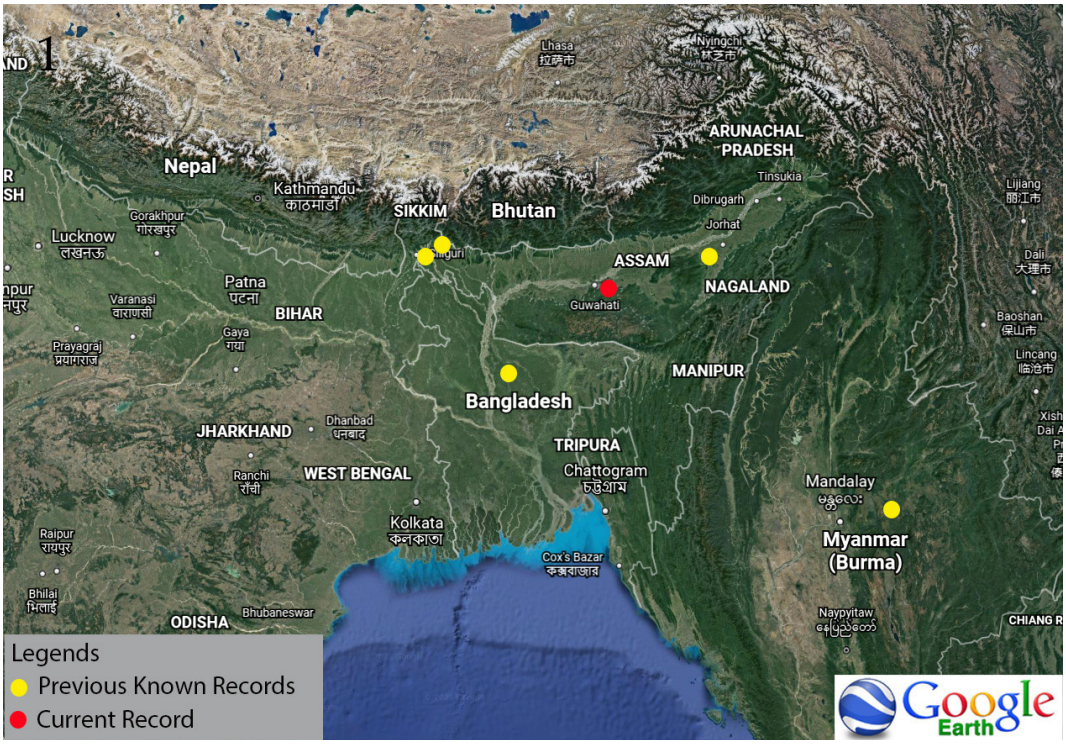

Figure 1. Previous and current records of *Amphithemis vacillans.* / Registros anteriores y actuales de *Amphithemis vacillans.*

Amphithemis vacillans Selys, 1891 (Fig. 2)

Males of the species has black prothorax and thorax; legs black with inner border of anterior femora yellow. The males can be easily identified by the black abdomen, segments 2 and 3 being pruinosed snow-white, but the basal half of the former segment less so (Fraser 1936).

Amphithemis vacillans is a freshwater species which breeds in marshes and small weedy pools and tanks in forest areas. The dragonfly is assessed as data deficient under the IUCN Red List of Threatened Species because of the lack of reliable records less than 70 years old, and the lack of expert sampling across its range since then (Sharma and Dow 2010). The authors hope that a sizeable population of this species exists in the forest of the state and more samplings are required across North-east India to assess the current status about the ecology, population, habitat and distribution of this species.

Figure 2. Current sighting of male *Amphithemis vacillans* in Byrnihat, Ri-bhoi distict, Meghalaya, India. / Avistamiento del macho de *Amphithemis vacillans* en Byrnihat, distrito de Ri-bhoi, Meghalaya, India.

Figure 3. Hill stream at Byrnihat, Ri-bhoi District, Meghalaya, India. The current locality and habitat of *Amphithemis vacillans* in Meghalaya, India. / Arroyo de montaña en Byrnihat, distrito de Ri-bhoi, Meghalaya, India. Localidad actual y hábitat de *Amphithemis vacillans* en Meghalaya, India.

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