

## ***ANAX PANYBEUS* HAGEN, 1867: AN ADDITION TO THE ODONATA (AESHNIDAE) OF INDIA**

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*Anax* Leach is a large dragonfly genus distributed throughout the world (Tsuda 2000). Currently 29 species are recognized (Schorr & Paulson 2012). The adults of different species are found in diverse wetland habitats such as ponds, marshes, lakes, rivers and streams. In India, hitherto six species of *Anax* have been recorded (Subramanian 2009). Here, we report a new record and range extension of *Anax panybeus* Hagen, 1867 to Andaman and Nicobar Islands.

**Materials examined:** 4868/H<sub>13</sub>, 1 male, 01.viii.1984, 27km on NS Road, Swarup Nullah, Great Nicobar Island; 4869/H<sub>13</sub>, 1 male, 01.viii.1984, 35km on NS Road, Shashtri Nagar, Great Nicobar Island, coll. S.S. Saha. The Specimens were deposited in National Zoological Collection, Zoological Survey of India, Kolkata.

**Measurements:** Abdomen: 64mm (including anal appendage); anal appendage: 7mm; hindwing: 51mm.

**Description:** Labium and labrum brownish-yellow. Labrum narrowly bordered with brown. Front yellow with a distinct black 'T' shaped marking on the upper surface. Prothorax reddish-brown. Thorax pale green. Legs black. Wings hyaline but a large patch of amber yellow on hindwing spreading between posterior end of

discoidal cells and slightly distal to node. Pterostigma darkish brown covering more than 2½ cells, long and narrow; discoidal of fore wing 6-celled and basal cell divided into two cells, 4-celled in hindwing; five cubital nervure in forewings and four in hindwing. Hypertrigone traversed three times in all the wings. Membrane brownish with a patch of white at extreme base. Nodal Index: 9-18/18-9 in forewings 9-12/12-10 in hindwings. Two robust antenodal nervure present in the forewings. Anal loop with 10–12 cells. Abdomen: 1<sup>st</sup> segment pale green; 2<sup>nd</sup> segment pale green on lower parts and bluish on dorsum and subdorsum; 3<sup>rd</sup> to 10<sup>th</sup> segments dark reddish-brown with black markings. Abdominal segment 3 is more constricted and distinctly elongated (about 11–12 mm). Anal appendages are reddish-brown; superior appendages are thick and strong (Images 1–4).

**Discussion:** The specimens in National Zoological Collection, ZSI were compared with description and illustrations (Lieftinck 1942) and identified. The species is known to be distributed widely in Brunei Darussalam, Cambodia, Indonesia, Japan, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Taiwan, Thailand and Timor-Leste (Karube 2009). The changes in coloration of the abdomen from greenish-yellow with black markings in live specimens to reddish-brown with black markings in the ZSI specimens could be a result of preservation. The current range extension of *Anax panybeus* on Great Nicobar Island is due to the proximity of the Nicobar group of islands to Sumatra of Indonesia, all part of the Sunda biodiversity hotspot. Recent studies that documented new odonate species



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Images 1–4. *Anax panybeus*

1 - dorsal view. Arrow mark indicate constriction of 3<sup>rd</sup> abdominal segment; 2 - Left hind wing; 3a - Male anal appendage dorsal view; 3b - Male anal appendage lateral view; 3c - Male anal appendage ventral view; 4 - Male *Anax panybeus* photographed at Malaysia. (Copyrights: 1–3 - Zoological Survey of India; 4 - Dr. Chee-Yen Choong)

from Andaman and Nicobar Islands (Hämäläinen et al. 1999; Yeh & Veenakumari 2000; Hämäläinen 2002) also emphasise that more detailed and extensive surveys are required to comprehensively document the odonate fauna of the islands.

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