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BLOW FLIES (DIPTERA : CALLIPHORIDAE) COLLECTED FROM NORTH-WESTERN REGION INCLUDING TWO NEW RECORDS FROM INDIA

INDERPAL SINGH SIDHU AND DEVINDER SINGH
DEPARTMENTOF ZOOLOGY, PUNJABI UNIVERSITY
PATIALA - 147 002, INDIA.

Twenty species of blow flies have been collected from north-west India covering the states of Punjab, Haryana, Himachal Pradesh, Delhi, Uttranchal and Rajasthan. One species represents its first report from Oriental region while another has been recorded from India for the first time.

Flies belonging to the families Calliphoridae are transmittors of serious human diseases (Greenberg, 1971 & 1973). The maggots of many species also cause myiasis in man and his domestic animals (James, 1947). The species that colonize dead bodies are responsible for quick degradation of animal remains and without their participation our earth will be full of decomposing animal matter. In the recent years immature stages of blow flies have also been used as forensic indicators (Smith, 1986; Catts & Haskel, 1990; Byrd & Castner, 2000; Goff, 2000). However, forensic entomology has yet to get due acceptance among the Indian law enforcing agencies and forensic scientists (Singh *et al.*, 1999).

Inspite of their considerable significance, blow fly fauna of India is poorly documented. After the monumental work by Senior-White *et al.* (1940), 17 more species have been added, bringing to 95 the total number of species known from this country. Surveys have been conducted during the last three years to collect blow flies from the north-western region. 20 species have been collected so far that include *Calliphora iowei* Enderlein recorded from the Oriental region for the first time and *Catapicephala splendans* Macquart, the first record from India.

SUBFAMILY CALLIPHORINAE

Calliphora vicina Robineau-Desvoidy

Material examined : 20 ♀♀, 11 ♂♂, Shimla, H.P., 2206 m, 8-9.x.1999; 3 ♀♀, 5 ♂♂, Kothi, HP., 2530 m, 6.vi.2001; 17 ♀♀, Mussoorie, Uttaranchal, 2005 m, 8.vii.2001; 2 ♂♂, Kalamunitop, Uttranchal, 2700 m, 8.ix.2001; 27 ♀♀, 11 ♂♂, Patiala, Punjab, 252 m, 1-7.xii.2000.

Calliphora vomitoria (Linnaeus)

Material examined : 2 ♀♀, Kalamunitop, Uttaranchal, 2700 m, 25.vi.1991; 10 ♀♀, 2 ♂♂, Kalamunitop, Uttaranchal 2700 m, 8.ix.2001.

Calliphora pattoni Aubertin

Material examnied : 3 ♀♀, 11 ♂♂, Shimla, H.P., 2206 m, 9.x.1999; 7 ♀♀, 14 ♂♂, Naldhera, H.P., 2044 m, 9.x.1999.

Calliphora ioewi Enderlein

Material examined : 5 ♀♀, Pandukeshwar, Uttaranchal, 1857 m, 28.vi.1992.
(This species was known so far only from Europe and Japan, and has been recorded for the first time from Oriental region).

Catapicephala pattoni Senior-White

Material examined : 3 ♂♂, Mussoorie, Uttaranchal, 2005 m, 8.vii.2001.

Catapicephala splendens Macquart

Material examined : 4 ♀♀, 18 ♂♂, Shimla, H.P., 2206 m, 9.x.1999; 3 ♀♀, 2 ♂♂, Manikaran, H.P., 1737 m, 7.vii.2000; 13 ♀♀, 5 ♂♂, Kandi, H.P., 2135 m, 11.viii.2000; 2 ♂♂, Chamba, H.P., 996 m, 17.iv.2000. (This species has been recorded for the first time from India).

Hemipyrellia pulchra (Wiedeman)

Material examined : 21 ♀♀, 16 ♂♂, Patiala, Punjab, 252 m, 7.ix.2000; 2 ♀♀, 11 ♂♂, Rishikesh, Uttaranchal, 340 m, 11.x.2002; 12 ♀♀, Chamba, H.P., 996 m, 17.iv.2000.

Hemipyrellia ligurriens (Wiedman)

Material examined : 3♀♀, Kothi, H.P., 2530 m, 6.vi.2001; 1 ♀, 7 ♂♂, Nainital, Uttaranchal, 1938 m, 5.vii.2001.

Lucilia cuprina (Wiedmann)

Material examined : 3♂♂, Jaipur, Rajasthan, 432 m, 11.iii.2000.

Lucilia illustris (Meign)

Material examined : 2♀♀, 8 ♂♂, Pithoragarh, Uttaranchal, 1650 m, 12.viii.2001; 11 ♀♀, 6 ♂♂, Patiala, Punjab, 252 m 1-7.ix.1999.

Lucilia porphyrina (Walker)

Material examined : 12 ♀♀, 21 ♂♂, Didihut, Uttaranchal, 1850 m, 7.viii.2001; 8 ♀♀, Mukteswar, Uttaranchal, 2290 m, 7.vii.2001; 17 ♀♀, 11 ♂♂, Dalhousie, H.P., 2036 m, 6.iv.2000.

Lucilia papuensis Macquart

Material examined : 14 ♀♀, 3 ♂♂, Didihut, Uttaranchal, 1850 m, 7.viii.2001.

Lucilia sericata (Meigen)

Material examined : 8 ♀♀, 6 ♂♂, Patiala, Punjab, 252 m, 23-25.x.1999.

SUBFAMILY CHRYSOMINAE

Chrysomya nigripes Aubertin

Material examined : 14 ♀♀, 18 ♂♂, Shimla, H.P., 2206 m, 9.x.1999.

Chrysomya rufifacies (Macquart)

Material examined : 2 ♀♀, 14 ♂♂, Patiala, Punjab, 252 m, 1-7.6.2001; 11 ♂♂, Rewalsar, H.P. 1830 m, 9.x.2000.

Chrysomya phaonis (Seguy)

Material examined : 16 ♀♀, 7 ♂♂, Manali, H.P., 5.v.2001; 3 ♀♀, 5 ♂♂, Drang, H.P., 1237 m, 12.v.2001.

Chrysomya megacephala (Fabricius)

Material examined : 41 ♀♀, 32 ♂♂, Mandi, H.P., 750 m, 7.x.1999; 25 ♀♀, 21 ♂♂, Patiala, Punjab, 252 m, 17.x.2001.

Chrysomya albiceps (Wiedmann)

Material examined : 13 ♂♂, Mussoorie, Uttaranchal, 2005 m, 8.vii.2001.

Chrysomya bezziana Villeneuve

Material examined : 2 ♀♀, 9 ♂♂, Delhi, 340 m, 21.vi.2000.

Chrysomya pinguis (Walker)

Material examined : 12 ♀♀, 6 ♂♂, Mandi, H.P., 750 m, 7.x.1999.

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