ON A SMALL DRAGONFLY COLLECTION FROM NEPAL

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During his 1972 post-monsoon mission to Humla and the western Terai Professor H. Franz (Hochschule fur Bodenkultur, Vienna, Austria) collected also some odonate material, and kindly passed it on to me for identification. The collection consists of 32 adult specimens, referable to 12 species of nine genera. Since hardly anything is known on the odonate fauna of Terai and no collections were ever made in the western part of it and in the Humla region, it seems worth while to briefly record the present material. The more so, since the collection includes two new species for the Nepalese fauna.

Species listed under Nos. (3) and (11) were taken at the Rara Lake, north of Jumla (alt.) 2900 m approx., September 30—October (1), all others originate from Amlekhganj in the Terai (October 7–9).

The author is obliged to the collector for putting the material at his disposal. It is deposited in the collections of the Netherlands Centre for Alpine Biological Research, Utrecht.

ANNOTATED LIST OF RECORDS

Family Coenagrionidae
Subfamily Pseudagrioninae

(1) *Ceriagrion cerinomelas* Lieftinck, 1927. Tijdschr. Ent. 70: 88–91, fig. 4.— 1 female.

The species was described originally from the Sutlej Valley in the western Himalaya, India (alt. 2300 m). It is known from a number of localities in Nepal (ASAHINA, 1965 a; ST. QUENTIN, 1970; KIAUTA, 1975), but has a very scattered distribution, though it may occur locally in exceeedingly large numbers.

It breeds in stagnant or very slowly running waters up to the 2000 m mark.

The adults are occasionally found in herbage at some distance from the breeding sites. Oviposition takes place in tandem and the male does not submerge.

Subfamily Ischnurinae

(2) *Ischnura aurora* (Brauer, 1865. Verh. zool.—bot. Ges. Wien 15: 510: sub *Agrion*).—1 male.

The species has a wide distribution in the Oriental Region. In Nepal it is common everywhere in the stagnant waters of the foothills and in the rice fields (cf. ASAHINA, 1964 b; ST. QUENTIN, 1970; KIAUTA, 1972, 1975).

It is often observed at a considerable distance from water, though it usually dwells in herbage in the immediate vicinity of its breeding sites. Emergence seems to take place particularly in the small hours. It is on wings also on rainy days and at twilight.

(3) *Ischnura elegans* Van der Linden, 1823. Opusc. Sci. 4: 104, no. 6, t. 4, fig. 5; sub *Agrion*).—1 male.

This ls the most common palearctic representative of the genus, ranging from Europe to northwestern India. The Rara Lake near Jumla represents its first known locality in the Nepalese territory. The species is strictly stagnicolous.

Subfamily Agriocneminae

(4) *Agriocnemis pygmaea* (Rambur, 1842. Ins. Nevropt. 278: sub *Agrion.*).—2 females.

This is the smallest species of the Indian fauna. It is widely distributed throughout southeastern Asia. So far it has been only once previously recorded from Nepal. (KIAUTA, 1972). This seems to be due to its inconspicuous habits rather than to its scarcity. Though nowhere common, single specimens can often be observed in pools and rice fields in the Kathmandu valley.

Family Libellulidae

Subfamily Libellulinae

(5) *Orthetrum glaucom* (Brauer, 1865. Verh. zool.-bot. Ges. Wien 15: 1012; sub *Libellula*).-1 male.

It is a rather common Indian species, reported repeatedly from Nepal

(ASAHINA. 1955, 1965 a, 1965 b; ST. QUENTIN, 1970). The elevations of the known localities lie within the range 300-2600 m.

(6) *Orthetrum sabina* (Drury, 1770. Ill. Exot. Ins. 1: 114, 115, pl. 48, fig. 4; sub *Libellula*).–3, males 1 female.

This is a common stagnicolous dragonfly, ranging from the eastern Mediterranean and Afica throughout southeastern Asia to Australia. The Nepalese range covers low and medium elevations up to 1700 m (cf. ASAHINA, 1955, 1964 b, 1965 a; ST. QUENTIN, 1970; KIAUTA, 1972, 1975. The species shows considerable structural variations, which have so far not been studied systematically.

O. sabina is one of the most voracious dragonflies It is a swift flyer over short stretches. Though it is far more common at the waterside than anywhere else, it is often found dwelling at a considerable distance from the breeding sites. Though not crepuscular as a rule, it is occasionally attracted by electric illumination. Overnight it hangs in low bushes, on shrubby undergrowth and on overgrown walls, often at some distance from water. Contrary to most other representatives of the genus, *sabina* rests in grass and on shrubby vegetation, where also the copulation takes place. Eggs are laid in the usual *Orthetrum* way, the ovipositing female is but seldom accompanied by the male.

Subfamily Sympetrinae

(7) *Acisoma panorpoides panorpoides* Rambur 1842. Ins. Nevropt. 28, pl. 2, fig. 2 b).—1 male.

The range extends from the Philippines, Indonesia and Shri Lanka, across Malaya and India to China. It is reported from a number of Nepalese localities up to 2000 m altitude (ASAHINA, 1965 b; ST. QUENTIN, 1970; KIAUTA, 1975). It is certainly more common in Nepal than the few published records would suggest; its inconspicuous appearance and cryptic habitats make it to be easily over looked.

It is a weak flyer, dwelling among swampy shore vegetation, low at the edge of pools, ponds, rice fields and marshes of all kinds. It is active only in bright sunshine and is never found far from water. It covers very short stretches, resting and perching on reeds and rank herbage low above the water surface.

(8) *Crocothemis servilia* (Drury, 1770. Ill. Exot. Ins. 1; 112, 113, pl 47. fig. 6; sub *Libellula*).—4, male 3, females.

The species has an enormous distribution throughout tropical and subtropical Asia, extending from Mesopotamia, across the Indian Subcontinent to Japan, Philippines, Australia and the Sunda Archipelago. In Nepal it is found everywhere in low country and in the foothills up to 2700 m altitude. It is particularly abundant at lower elevations and in the cultivated country (cf. ASAHINA, 1955, 1964 b, 1965 b; ST. QUENTIN, 1970: KIAUTA, 1972, 1975).

O. servilia is a stagnicolous species, breeding in all kinds of stagnant water basins, not seldom hovering in countless numbers over the water table and rice fields. It is but seldom found at some distance from water.

(9) *Diplacodes nebulosa* (Fabricius, 1793, Ent. Syst. 2: 379; sub *Libellula*).–2, males 4 female.

The species range extends from India and Shri Lanka to Indonesia and Australia. It is everywhere local, though extremely abundant at some places. From Nepal it was only once previously recorded (KIAUTA, 1972) It seems that it is limited to the southwestern and (perhaps) southern parts of the country and is probably completely lacki g in the Kathmandu Valley and northwards of it

It is never found away from water, and breeds in marshes and heavily weeded pools.

(10) *Diplacodes trivialis* (Rambur, 1842, Ins. Nevropt 115; sub *Libellula*).—1, male 2 females.

The distribution extends throught southern Asia and the Oriental Region and the species has been repeatedly reported from Nepalese localities between 400 and 1800 m altitude (ASAHINA, 1955, 1964 a: ST. QUENTIN, 1970; KIAUTA, 1972, 1975).

D. trivialis is a swift, though not a strong flyer, usually flying close above the ground vegetation. It is a rather inconspicuous species, often found at great distance from breeding sites. It frequents rice fields, meadows, gardens and similar open localities, and is often found settled on bare spots, on dry foot tracks, on road sides etc., but also on flowers and other green vegetation. During the night and in rainy weather it rests in grass and low herbage.

While in gardens and bushy places it often falls victim to larger asilid flies. In open country, if not too far from water, it is an easy prey of *Orthetrum sabina*. Occasionally a specimen also is found in spider webs.

(11) *Sympetrum haematoneura* Fraser, 1934. Mem. Dept. Agric. India (Ent.) 8: 70, 71.—1 male.

The species has been originally described from Kashmir and is here for the first time recorded from Nepal. It is likely to be restricted to the western parts of the country. The present record is extending the known range of the species considerably in the eastwards direction.

Subfamily Tritheminae

(12) *Trithemis pallidinervis* (Kirby, 1889, Trans. zool. Soc. Lond 12: 327, pl. 55, fig. 4; sub *Sympetrum*).–3 males, 1 female.

A common species in the Indian Subcontinent, extending eastwards to Taiwan and the Philippines and southwards to Singapore. In Malaya it is immigrating from the North. In Nepal it was recorded from elevations up to 2600 m. (ST. QUENTIN, 1970; KIAUTA, 1972), but it is rather local and nowhere abundant.

This is the largest and the strongest representative of the genus. Its larva is stagnicolous.

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