ADDITION TO THE LIST OF BUTTERFLIES OF SULTANPUR NATIONAL PARK, HARYANA, INDIA (LEPIDOPTERA: RHOPALOCERA)

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ABSTRACT: A total of 36 species belonging to 26 genera and 5 families were collected and identified, out of which 20 species of butterflies were added to the list of Butterflies of Sultanpur National Park for the first time. The family Nymphalidae dominated the scene with 15 species, followed by Pieridae 10 species, Lycaenidae 6 species, Papilionidae 3 species & Hesperiidae 2 species.

KEY WORDS: Butterflies, Lepidoptera, Sultanpur National Park, Haryana

The Sultanpur National Park is at a distance of about 13 Kms. from Gurgaon on Gurgaon-Farukh Road. This park is spread over an area of 352.17 acres. The National Park has been carved out of the land of Sadhrana, Chandu, Sultanpur and Saidpur villages. The park is located around the intersection of the 76° 53’ east longitude and 28° 28’ north latitude. Sultanpur jheel is a seasonal jheel that was described by M. Krishnan, the eminent naturalist as ‘a sheet of shallow water not merely rain fed, which dries up in summer. The jheel lies in one of the natural depressions in the undulating terrain of Gurgaon district and is surrounded by gently sloping dunes which range from 214 to 225 metres above mean sea level during the monsoon, overflows from neighbouring nullahs (mainly to the south of the park) and agricultural areas fill up this hollow. As the soil is naturally clayey with high water retention capacity, this accumulated water remains in the jheel for several months after the monsoons are over.

Two types of vegetation have been identified within the Park. There is the seasonal aquatic vegetation, flourishing and disappearing with the change of seasons and the open grasslands containing the patches of planted kikar, Acacia nilotica forest. In addition there is the community of the plants typical of the bunds which surround the jheel and the small well maintained patch of lawn which has a mixture of planted Indian and exotic trees. The major part of the National Park is covered by seasonal vegetation which is adapted to a seasonal watery existence. Just after a good monsoon, the water fills up the jheel, in some places to the level of bund. At this time, when the water level is high, one can see the diverse aquatic vegetation in its element with several species flowering. The sides of the bunds which surround the jheel have characteristic plants that survive on dry land such as Puthkunda, Gobi, Tulati pati. ‘Savannah woodland’ is a useful term to describe the dry grassy stretches having scattered trees or groups of planted trees. There are also large open stretches of grasses with hardly any tree cover. The latter surrounds mainly the jheel-bed and cover the southeastern and western ends of the park. The dominant grasses include khus, Vetiveria zizanioides and moonj, Erianthus ravennae. Moonj grass grows tall and bear large silvery clumps of flowers which turn dry only in December. Most of the trees which are dominated by kikar, Acacia nilotica and Khejdi, Prosopis cineraria have been planted after the declaration of the area as a sanctuary.
MATERIAL AND METHODS

The collections and observations were made in Sultanpur National Park (with GPS readings: 28°27.744’N; 076°53.188’E; Accuracy 10’; Elevation 778’) on 9.12.2012 and from 24-26.09.2013.

Butterflies were collected with the help of a specified butterfly net. After netting, the voucher specimens (non-schedule species only) were collected and preserved for identification. Later, these were deposited as the National Zoological Collection (NZC) at the Northern Regional Centre, Dehradun. For the identification of butterflies, Bingham (1905, 1907), Evans (1932), Talbot (1939, 1947), Wynter-Blyth (1957), Haribal (1998) and Kehimkar (2008), etc were followed.

OBSERVATION AND RESULTS

A total of 36 species belonging to 26 genera and 5 families were collected and identified, out of which 20 species of butterflies were added to the list of Butterflies of Sultanpur National Park for the first time. Lal et al. (1996) listed 18 species of butterflies under 6 families from Sultanpur National Park. Family Papilionidae with 3 species (Papilio demoleus Linnaeus, P. polytes Linn., Polyandrous aristolochiae (Fabricius), Nymphalidae 6 species (Precis orithya (Butler), P. almana (Linnaeus), P. hierta (Fabricius), P. lemonias (Linn.), Vanessa cardui (Linnaeus), Hypolomnas missipusi (Linnaeus), Danaidae 2 species (Danais chrysippus (Linnaeus), Euploea core (Cramer), Pieridae 4 species (Colotis calais (Cramer), Eurema hecabe (Linn.), Catopsilia crocale (Cramer), Anaphes aurato (Fabricius), Satyridae 2 species (Melanitis leda (Cramer), Mycalesis sp.), Hesperiidae 1 species (Sanchus pulligo Moore).

Family-wise analysis of the number of species revealed that the family Nymphalidae dominated with 15 species (Subfamily Nymphalinae 10 species, Danainae 3 species, Satyrinae 2 species) followed by Pieridae- ‘Whites’ or ‘Yellows’ 10 species, Lycaenidae (Blues) 6 species, Papilionidae (Swallowtails) & Hesperiidae (Skippers) with 3 species each.

The abundance status provided here is based on an arbitrary frequency scale and was quantified as follows: Common (encountered 6-10 times), Less Common (3-5 times), and Uncommon (only once or twice).

Abbreviation used: Coll.- Collector

TAXONOMIC ACCOUNT

Superfamily PAPILIONOIDEA
Family PIERIDAE (Whites & Yellows)
Subfamily PIERINAE
Leptosia nina nina (Fabricius)
The Psyche


Status: Less common.


Wingspan: 30-50 mm.

Pieris canidia indica Evans, Indian cabbage White
**Status:** Less common.
**Wingspan:** 45-60 mm.
**Distribution:** India: Himalayas, Nilgiris, Kerala, Karnataka, **Elsewhere:** Pakistan, Myanmar and Nepal.

Pieris brassicae nepalensis Doubleday, The Large cabbage White
**Status:** Less common.
**Wingspan:** 65-75 mm.
**Distribution:** India: Himalaya to Assam and Plains adjoining the Himalayas, **Elsewhere:** Pakistan, Nepal.

Subfamily COLIADINAE

Catopsilia pyranthe pyranthe (Linnaeus), The Mottled Emigrant
**Status:** Common.
**Material examined/observed:** Gurgaon, SNP: 3 males, 1 female, Reg. no. A-12096, 24.ix.2013, N. Sharma & party.
**Wingspan:** 50-70 mm.
**Distribution:** India: Throughout India, **Elsewhere:** Bangladesh, Bhutan, Nepal, Pakistan, Sri Lanka, Myanmar and Southeast Asia.

Eurema laeta laeta (Boisduval), The Spotless Grass Yellow
**Status:** Uncommon.
**Material observed:** Gurgaon, SNP: 1 male, 24.ix.2013, N. Sharma & party.
**Wingspan:** 30-40 mm.
**Distribution:** Throughout peninsular India, ascending to about 8,000 feet in North-West Himalayas. **Elsewhere:** Sri Lanka.

Eurema blanda silhetana (Wallace), Three Spot Grass Yellow
**Status:** Uncommon.
**Material examined:** Gurgaon, SNP: 1 male, Reg. no. A-11740, 25.ix.2013, Coll. N. Sharma & party.
**Wingspan:** 40-50 mm.
**Distribution:** India: Throughout India. **Elsewhere:** Sri Lanka, Bhutan, Bangladesh and Myanmar.

Family NYMPHALIDAE

Subfamily NYMPHALINAE

Hypolimnas bolina (Linnaeus), The Great Eggfly
**Status:** Uncommon.
**Material observed:** Gurgaon, SNP: 1 male, 26.ix.2013, N. Sharma & party.
Wingspan: 70-110 mm.

Ariadne merione tapestrina (Moore), The Common Castor
Status: Uncommon.
Wingspan: 45-55 mm.

Phalanta phalantha (Drury), The Common Leopard
Status: Less Common.
Wingspan: 50-60 mm.

Neptis hylas astola Moore, The Common Sailer
Status: Less Common.
Wingspan: 45-55 mm.

Subfamily SATYRINAE
Mycalesis mineus mineus (Linnaeus), The Dark-band Bushbrown
Status: Common.
Wingspan: 45-50 mm.

Subfamily DANAINAE
Danaus genutia genutia (Cramer), The Common Tiger
Status: Uncommon.
Material observed: Gurgaon, SNP: 1 male, 26.ix.2013, N. Sharma & party.

Family LYCAENIDAE
Subfamily POLYOMMATINAE
**Leptotes plinius** (Fabricius), The Zebra Blue

**Status:** Uncommon.


**Wingspan:** 27-32 mm.

**Distribution:** India: Throughout India. **Elsewhere:** Nepal, Bangladesh, South China, Sri Lanka, Taiwan, Philippines, Papua New Guinea, East Australia.

**Azanus ubaldus** (Cramer), The Bright Babul Blue

**Status:** Common.


**Wingspan:** 23-24 mm.

**Distribution:** India: Throughout India. **Elsewhere:** West Pakistan, Ceylon, Afghanistan, Nepal.

**Catochrysops strabo** (Fabricius), The Forget-me-not

**Status:** Uncommon.

**Material examined:** Gurgaon, SNP: 1 male, Reg. no. A-12120, 24.ix.2013, Coll. N. Sharma & party.

**Wingspan:** 30-33 mm.

**Distribution:** India: Uttarakhand, Himachal Pradesh.

**Euchrysops cnejus cnejus** (Fabricius), The Gram Blue

**Status:** Uncommon.

**Material examined:** Gurgaon, SNP: 1 male, Reg. no. A-12121, 25.ix.2013, Coll. N. Sharma & party.

**Wingspan:** 29-35 mm.

**Distribution:** India: Throughout India. **Elsewhere:** Baluchistan, Sri Lanka, South China, Malay Archipelago and Australia.

**Freyeria trochylus** (Freyer), The Grass Jewel

**Status:** Less common.


**Wingspan:** 24-28 mm.

**Distribution:** India: North-West India. **Elsewhere:** Nepal, West Pakistan, Sri Lanka, Myanmar.

**Pseudozizeeria maha** (Kollar), The Pale grass blue

**Status:** Less common.

**Material examined/observed:** Gurgaon, SNP: 1 male, 1 female, Reg. no. A-12123, 25.ix.2013, 1 male, 26.ix.2013, Coll. N. Sharma & party.

**Wingspan:** 24-26 mm.

**Distribution:** India: Central-North India. Elsewhere: Nepal, Pakistan, Baluchistan.

**Family HESPERIIDAE**

*Borbo cinnara* (Moore), *The Rice Swift*


**Status:** Common.


**Wingspan:** 30-36 mm.

**Distribution:** India: Throughout India. Elsewhere: Sri Lanka, Myanmar.

*Pelopidas mathias* (Fabricius), *The Small Branded Swift*


**Status:** Less Common.


**Wingspan:** 32-38 mm.

**Distribution:** India: Throughout India. Elsewhere: Sri Lanka, Myanmar.

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**LITERATURE CITED**


