

**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 & Hesperidae 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 Grurgaon-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), *Anapheis aurota* (Fabricius), Satyridae 2 species (*Melanitis leda* (Cramer), *Mycalesis* sp.), Hesperiiidae 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) & Hesperiiidae (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

1793. *Papilio nina* Fabricius, Ent. Syst., 3 (1): 194.

1995. *Leptosia nina nina* Fabricius: Arora et al., Himalayan Ecosystem Series, Fauna of Western Himalaya, Zoological Survey of India, Part-1: 65.

Status: Less common.

Material examined/observed: Gurgaon, SNP: 1 male, 30.viii.2012, A. Bahuguna & party; 2 female, Reg. no. A-12089, 25.ix.2013, Coll. N. Sharma & party.

Wingspan: 30-50 mm.

Distribution: India: Throughout India. **Elsewhere:** Pakistan, Nepal, Bangladesh., Sri Lanka and Myanmar.

***Pieris canidia indica* Evans, Indian cabbage White**

1926. *Pieris canidia indica* Evans, J. Bombay nat. Hist. Soc., 31: 312.

Status: Less common.

Material examined/Observed: Gurgaon, SNP: 1 male, 1.ix.2012, A. Bahuguna & party; 1 male, 24.ix.2013, Reg. no. A-12091, Coll. N. Sharma & party.

Wingspan: 45-60 mm.

Distribution: India: Himalayas, Nilgiris, Kerala, Karnataka, **Elsewhere:** Pakistan, Myanmar and Nepal.

***Pieris brassicae nepalensis* Doubleday, The Large cabbage White**

1846. *Pieris brassicae* var. *nepalensis* Doubleday, Gen. Diur Lep., 1: 9.

1939. *Pieris brassicae nepalensis* Doubleday: Talbot, Fauna of British India, Butterflies, 1: 427-428.

Status: Less common.

Material examined/Observed: Gurgaon, SNP: 1 male, 30.viii.2012, A. Bahuguna & party; 2 males, Reg. no. A-12092, 25.ix.2013, Coll. N. Sharma & party.

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**

1758. *Papilio pyranthe* Linnaeus, Syst. Nat., (10th ed.): 469.

1939. *Catopsilia pyranthe pyranthe*: Talbot, Fauna Brit. India, Butterflies, 1: 497-498.

Status: Common.

Material examined/observed: Gurgaon, SNP: 3 males, 1 female, Reg. no. A-12096, 24.ix.2013, 2 males, 25.ix.2013, Coll. 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**

1836. *Terias laeta* Boisduval, Spec. Gen. Lep., 1: 674.

1990. *Eurema laeta laeta* (Boisduval): Ghosh, Mondal & Chaudhary, Rec. zool. Surv. India, 86 (1): 22.

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**

1867. *Terias silhetana* Wallace, Trans. Ent. Soc. Lond., 4 (3): 324.

1939. *Eurema blanda silhetana* (Wallace): Talbot, Fauna of British India, Butterflies, 1: 523-525.

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**

1758. *Papilio bolina* Linnaeus, Syst. Nat., (10th ed): 479, no.124.

1911. *Hypolimnas bolina* (Linnaeus): Tytler, J. Bombay nat. Hist. Soc., 21 (1): 54.

Status: Uncommon.

Material observed: Gurgaon, SNP: 1 male, 26.ix.2013, N. Sharma & party.

Wingspan: 70-110 mm.

Distribution: India: Throughout India. **Elsewhere:** Sri Lanka, Pakistan, Bangladesh and Myanmar.

***Ariadne merione tapestrina* (Moore), The Common Castor**

1884. *Ergolis tapestrina* Moore, J. Asiat. Soc. Bengal: 19.

1932. *Ergolis merione tapestrina*: Evans, The Identification of Indian Butterflies: 191.

1994. *Ariadne merione*: Varshney, Oriental Ins., 28: 167.

Status: Uncommon.

Material examined: Gurgaon, SNP, 1 male, Reg. no. A-12100, 24.ix.2013, Coll. N. Sharma & party.

Wingspan: 45-55 mm.

Distribution: India: Himachal Pradesh, Chhattisgarh, Delhi, Jammu & Kashmir, Madhya Pradesh, Orissa and Uttar Pradesh. **Elsewhere:** Sri Lanka and Myanmar.

***Phalanta phalantha* (Drury), The Common Leopard**

1770. *Papilio phalantha* Drury, Illus. nat. Hist., 1: 21- figs.1, 2.

1992. *Phalanta phalantha* (Drury): Haribal, Butterflies of Sikkim Himalaya: 159.

Status: Less Common.

Material examined / observed: Gurgaon, SNP: 2 males, Reg. no. A-12102, 23.ix.2013, Coll. N. Sharma & party; 1 male, 1.ix.2012 Coll. A. Bahuguna & party.

Wingspan: 50-60 mm.

Distribution: India: Throughout. **Elsewhere:** Sri Lanka, Pakistan, Bangladesh and Myanmar.

***Neptis hylas astola* Moore, The Common Sailer**

1872. *Neptis astola* Moore, Proc. Zool. Soc. Lond.: 561.

1932. *Neptis hylas astola*: Evans, The Identification of Indian Butterflies: 166.

2004. *Neptis hylas* Moore: Gupta, Fauna of Manipur, State Fauna Series, 10: 555.

Status: Less Common.

Material examined/observed: Gurgaon, SNP: 1 male, Reg. no. A-12109, 26.ix.2013, Coll. N. Sharma & party; 2 males, 30.viii.2012, Coll. A. Bahuguna & party.

Wingspan: 45-55 mm.

Distribution: India: Kashmir to Karen Hills, Himachal Pradesh, Jammu & Kashmir, Uttarakhand.

Subfamily SATYRINAE

***Mycalesis mineus mineus* (Linnaeus), The Dark-band Bushbrown**

1767. *Papilio mineus mineus* Linnaeus, Syst. Nat., 1: 768.

1932. *Mycalesis mineus mineus* (Linnaeus): Evans, The Ident. Indian Butts., (2nd ed.): 98.

Status: Common.

Material examined/observed: Gurgaon, SNP: 2 males, 1 female, 24.ix.2013, Reg. no. A-12110, 2 male, 25.ix.2013, 1 female, 26.ix.2013, Coll. N. Sharma & party.

Wingspan: 45-50 mm.

Distribution: India: Andamans, Himachal Pradesh (Kangra, Kullu, Mandi), Sikkim, Uttarakhand (Mussoorie, Kumaon), West Bengal. **Elsewhere:** Myanmar and Sri Lanka.

Subfamily DANAINAE

***Danaus genutia genutia* (Cramer), The Common Tiger**

1779. *Papilio genutia* Cramer, Pap. Exot., 3: 23.

1998. *Danaus genutia genutia* (Cramer): Mondal & Maulik, Fauna of Meghalaya, State Fauna Series, 4 (Part-6): 236.

Status: Uncommon.

Material observed: Gurgaon, SNP: 1 male, 26.ix.2013, N. Sharma & party.

Distribution: India: Throughout India. **Elsewhere:** Nepal, Myanmar, Sri Lanka, Vietnam, Thailand, South China, Pakistan and Afghanistan.

Family LYCAENIDAE

Subfamily POLYOMMATINAE

***Leptotes plinius* (Fabricius), The Zebra Blue**

1793. *Hesperia plinius* Fabricius, Ent. Syst., 3 (1): 284.

1823. *Polyommatus plinius*: Godart, Enc. Meth., 9: 658.

1881. *Tarucus plinius* Moore, Lep. Ceylon, 1: 82.

Status: Uncommon.

Material examined: Gurgaon, SNP: 1 male, Reg. no. A-12118, 25.ix.2013, Coll. N. Sharma & party.

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**

1782. *Papilio ubaldus* Cramer, Pap. Exot., 4: 209.

1882. *Azanus ubaldus*: Moore, Proc. Zool. Soc. Lond.: 245.

1865. *Lycaena zena* Moore, Proc. Zool. Soc. Lond., 1865 (2): 202.

1870. *Lycaena itea* Walker, Entomologist, 5: 55.

Status: Common.

Material examined/observed: Gurgaon, SNP: 2 males, 1 female, Reg. no. A-11741-42, 24.ix.2013; 1 male, 1 female, Reg. no. A-11743, 25.ix.2013; 1 male, 1 female, Reg. no. A-12119, 26.ix.2013. Coll. N. Sharma & party.

Wingspan: 23-24 mm.

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

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

1793. *Hesperia strabo* Fabricius, Ent. Syst., 3: 287.

1823. *Polyommatus strabo*: Godart, Enc. Meth., 9: 656.

1832. *Catochrysops strabo*: Boisduval, In d'Urville Voy. Astrolabe, 1 (Lep.): 88.

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**

1798. *Hesperia cnejus* Fabricius, Ent. Syst. Suppl.: 430.

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**

1845. *Lycaena trochylus* Freyer, Neuere Beitr. Schmett., 5 (74): 98.

1862. *Polyommatus trochylus* Kirby, Eur. Butt.: 99.

1932. *Zizeeria trochylus*: Evans, Ident. Indian Butts. (2nd ed.): 233.

1963. *Freyeria trochylus*: Cantlie, Lyc. Butts Revised: 63.

Status: Less common.

Material examined: Gurgaon, SNP: 2 males, Reg. no. A-12122, 24.ix.2013, 1 male, 26.ix.2013, Coll. N. Sharma & party.

Wingspan: 24-28 mm.

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

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

1844. *Lycaena maha* Kollar, Hugel's Kaschmir, 4 (2): 422.

1882. *Zizera maha*: Moore, Proc. zool. Soc. Lond., 1882: 245.

1910. *Zizeeria maha*: Chapman, Trans. Ent. Soc. Lond., 1910: 484.

1955. *Pseudozizeeria maha* : Beuret, Mitt. Ent. Ges. Basel (n.f.), 5: 125.

Status: Less common.

Material examined/observed: Gurgaon, SNP: 1 male, 1 female, Reg. no. A-12123, 24.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

1866. *Hesperia cinnara* Moore, Proc. zool. Soc. Lond.: 361.

Status: Common.

Material examined/observed: Gurgaon, SNP: 2 males, 2 females, Reg. no. A-11744, 24.ix.2013, 2 males, 25.ix.2013, Coll. N. Sharma & party.

Wingspan: 30-36 mm.

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

Pelopidas mathias (Fabricius), The Small Branded Swift

1798. *Hesperia mathias* Fabricius, Ent. Syst. Suppl.: 433.

2003. *Pelopidas mathias* (Fabricius): Majumdar, Fauna of Sikkim, State Fauna Series, 9 (4): 131.

Status: Less Common.

Material examined: Gurgaon, SNP: 2 males, 1 female, Reg. no. A-11745, 25.ix.2013, 1 male, Reg. no. A-12124, 26.ix.2013, Coll. N. Sharma & party.

Wingspan: 32-38 mm.

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

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LITERATURE CITED

- Bingham, C. L.** 1905. The fauna of British India including Ceylon and Burma, Butterfly-Vol-I. Taylor and Francis Ltd., London, 511 pp.
- Bingham, C. L.** 1907. The fauna of British India including Ceylon and Burma, Butterfly-Vol-II. Taylor and Francis Ltd., London, 453 pp.
- Evans, W. H.** 1932. The identification of Indian Butterflies. (2nd Edition). The Bombay Natural History Society, Mumbai, 454 pp.
- Haribal, M.** 1992. The Butterflies of Sikkim Himalaya and Their Natural History. Published by Sikkim Nature Conservation Foundation (SNCF), Gangtok, Sikkim, 217 pp.
- Kehimkar, I.** 2008. The Book of Indian Butterflies. Bombay Natural History Society, Mumbai, 487 pp.
- Lal, R., Shahabuddin, G. & Pande, P.** 1996. Small and Beautiful Sultanpur National Park. Kalpavriksh publications, 73 pp., 29 illustrations, 3 maps.
- Talbot, G.** 1939. The Fauna of British India including Ceylon and Burma, Butterfly-Vol-I. Taylor and Francis Ltd., London, 600 pp.
- Talbot, G.** 1947. The Fauna of British India including Ceylon and Burma, Butterfly-Vol-II. Taylor and Francis Ltd., London, 506 pp.
- Wynter-Blyth, M. A.** 1957. Butterflies of the Indian region. Bombay Natural History Society, Bombay, 523 pp.