

**ON A COLLECTION OF BUTTERFLIES (LEPIDOPTERA : RHOPALOCERA)  
FROM KANHA NATIONAL PARK, MADHYA PRADESH, INDIA**

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**INTRODUCTION**

The present paper deals with the studies on butterflies of Kanha National Park, Mandla and Balaghat district, Madhya Pradesh (fig. 1). The Park extends between latitudes 22°00' and 22°30' N. and longitudes 80°25' and 81°07' E. in the two districts, Mandla and Balaghat of Madhya Pradesh. The heart of the Park, Kanha forest village, is about 54 km. south-east of Mandla town. It was constituted as National Park in the year 1955 and has an area of 1208.15 sq. km. The park is a stretch of wild and hilly country with a broad tableland surrounded in circular manner by range of hills, about 914 m. high in the northern part of the park. The southern part of the park is mainly hilly with chain of hills of varying heights. The top of hills are flat. The main portion of the park is a plateau rising up to 893 m. above MSL.

Singh (1995) has reported seven species from the park. This study deals with a collection of butterflies available in the Central Regional Station, Zoological Survey of India, Jabalpur, collected by Dr. H. Khajuria, Dr. R.K. Ghose and Dr. R.K. Singh during different surveys of the park.

Altogether 19 species in 11 genera and 4 families are reported. One species *Neptis soma* Moore, of family Nymphalidae is reported for the first time from Madhya Pradesh and three species viz. *Catopsilia florella gnoma* (Fab.), *C. crocale* (Cramer), *Eurema brigitta rubbella* (Wallace), of family Pieridae; one species viz. *Melanitis phedima bethami* de Niceville of family Satyridae; eight species viz. *Neptis soma* Moore, *Hypolimnna misippus* (Linn.), *Precis almana almana* (Linn.), *P. atlites* (Linn.), *P. lemonias vaisya* Fruhstorfer, *P. orithya swinhoei* (Butler), *Euthalia nais* (Forster) and *Cynthia cardui* (Linn.) are reported for the first time from Kanha National Park, district Mandla and Balaghat.

The common names were referred from Varshney (1983) and Evans (1932). The Food plants were referred from Appendix in Wynter-Blyth (1957) and Gupta and Shukla (1987). The classification has been followed after Talbot (1939 & 1947).

**ABBREVIATIONS USED**

- KNP — Kanha National Park, Mandla and Balaghat districts.  
Coll. — Name of Collector.

ex. (s) — Number of examples (s).

HK — Dr. H. Khajuria.

RKG — Dr. R.K. Ghose.

RKS — Dr. R.K. Singh.

#### SYSTEMATIC ACCOUNT

Phylum : ARTHROPODA

Class : INSECTA

Order : Lepidoptera

Sub Order : RHOPALOCERA

Family 1 : PIERIDAE

Genus 1 : *Valeria* Horsfield, 1829

1. *Valeria valeria hippia* (Fabricius)

1787. *Papilio hippia* Fabricius, *Mantissa Ins.*, 2 : 55.

*Common name* : The Common Wanderer.

*Material examined* : 1 ex., KNP, 21.1.1991, Coll. RKG (Reg. No. A/1926).

*Distribution* : India (Sikkim, Uttar Pradesh, Maharashtra, Karnataka, Tamil Nadu, West Bengal, Madhya Pradesh) ; Myanmar and Thailand.

*Food plants* : *Capparis heyneana*, *C. zeylanida*.

Genus 2 : *Catopsilia* Hubner, 1819.

2. *Catopsilia florella gnoma* (Fabricius)

1775. *Papilio gnoma* Fabricius, *Syst. Ent.*, : 828.

*Common name* : The African Emigrant.

*Material examined* : 1 ex., KNP, 2.12.1986, Coll. RKS (Reg. No. A/1958).

*Distribution* : India (N.W Himalayas, Maharashtra, West Bengal, Karnataka, Uttar Pradesh, Kerala, Madhya Pradesh, Andaman) ; Sri Lanka and Myanmar.

*Food plants* : *Cassia tora*, *C. auriculata*, *C. occidentalis*.

3. *Catopsilia crocale crocale* (Cramer)

1775. *Pipilio crocale* Cramer, *Syst. Ent.*, : 87.

*Common name* The Lemon Emigrant.

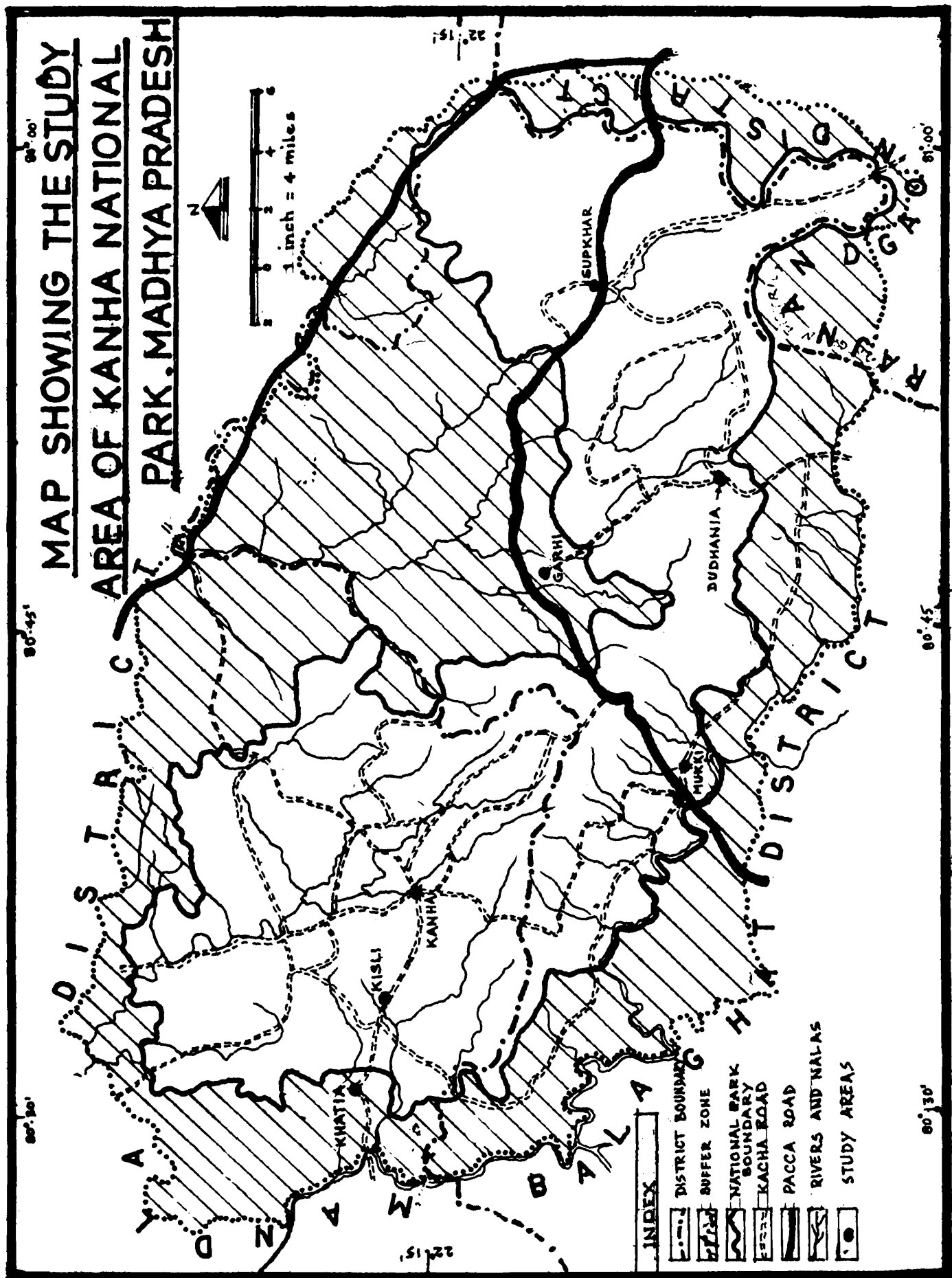


Fig. 1 : Map showing the study area of Kanha National Park, Madhya Pradesh.

*Material examined* : 5 exs., KNP, 28.5.1964, Coll. HK (Reg. No. A/396 to 400) ; 1 ex., KNP, 21.1.1991. Coll RKG (Reg. No. A/1925).

*Distribution* : India (Tamil Nadu, Gujarat, Madhya Pradesh, N.W. Himalayas, Andaman & Nicobar, Uttar Pradesh, Kerala, West Bengal, Maharashtra) ; Sri Lanka ; Pakistan ; Myanmar ; S. China ; Indonesia ; the Philippines.

*Food plants* : *Cassia fistula*, *C. siamea*, *C. tora*, *C. auriculata*, *C. grandis*, *C. javanica*, *C. nodosa*, *C. occidentalis*, *Diospyros discolor*, *Butea frondosa*, *Bauhinia racemosa*.

#### 4. *Catopsilia pyranthe pyranthe* (Linnaeus)

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

*Common name* : The Mottled Emigrant.

*Material examined* : 3 exs., KNP, 28.5.1964. Coll HK (Reg. No. A/733, 734).

*Distribution* : India (N.W. Himalayas, Gujarat, Madhya Pradesh, Uttar Pradesh, Kerala) ; Sri Lanka ; Pakistan ; Myanmar ; China ; Indonesia ; the Philippines.

*Food plants* : *Cassia tora*, *C. auriculata*, *C. occidentalis*, *C. nodosa*, *Sesbania aegyptica*.

#### 5. *Catopsilia pomona* (Fabricius)

1775. *Papilio pomona* Fabricius, *Syst. Ent.*, : 479.

*Common name* : The Lemon Emigrant.

*Material examined* : 2 exs., KNP, 30.11.1986, Coll. RKS (Reg. No. A/2682).

*Distribution* : India (Andamans–Nicobars, Tamil Nadu, Gujarat, Madhya Pradesh, N.W. Himalayas, Kerala, Uttar Pradesh, West Bengal, Maharashtra) ; Pakistan ; Sri Lanka ; Myanmar ; Indonesia ; China ; and the Philippines.

*Food plants* : *Cassia fistula*, *C. siamea*, *C. tora*, *C. auriculata*, *C. grandis*, *C. javanica*, *C. nodosa*, *C. occidentalis*, *Diospyros discolor*, *Butea frondosa*, *Bauhinia racemosa*.

Genus 3 : *Eurema* Hubner, 1819

#### 6. *Eurema brigitta rubella* (Wallace)

1867. *Terias rubella* Wallace, *Trans. ent. Soc. Lond.*, 4(3) : 323.

*Common name* : The Small Grass Yellow.

*Material examined* : 1 ex., KNP, 30.11.1986, Coll. RKS (Reg. No. A/1962).

*Distribution* : India (West Bengal, N.W. Himalayas, Karnataka, Uttar Pradesh, Kerala, Maharashtra, Tamil Nadu, Punjab, Madhya Pradesh, Bihar, and Nicobars) ; Sri Lanka ; Thailand.

*Food plants* : *Cassia kleinii*, *C. koenigii*, *Homonium* sp.

7. *Eurema hecabe simulata* (Moore)1881. *Terias simulata* Moore, *Lep. Ceylon*, 1 : 119.*Common name* : The Common Grass Yellow.*Material examined* : 3 exs., KNP, 30.11.1986, Coll. RKS (Reg. Nos. A/1959, 1960, 1961) ; 1 ex., KNP, 18.1.1981, Coll. RKG (Reg. No. A/1924) ; 2 exs., KNP, 27.11.1986, Coll. RKS (Reg. No. A/2683).*Distribution* : India (West Bengal, Madhya Pradesh, Kerala, Maharashtra, Bihar, South India, Central Provinces) ; Sri Lanka ; Pakistan.*Food plants* : *Cassia tora*, *C. fistula*, *C. mimosoides*, *Wagatea spicate*, *Pithecolobium dulce*, *Sesbania aculeata*, *Albizia procera* ; *Caesalpinia* sp., *Albizia* sp., *Acacia* sp.

## Family 2 : DANAIDAE

Genus 4 : *Danaus* Kluk, 17808. *Danaus limniace leopardus* Butler1866. *Danaus limniace* var. *leopardus* Butler, *Proc. zool. Soc. Lond.*, 1886 : 52.*Common name* : The Blue Tiger.*Material examined* : 1 ex., KNP, 1.2.1991, Coll. RKG (Reg. No. A/1911).*Distribution* : India (N. India, Uttar Pradesh, Noco-bars, Himachal Pradesh, Madhya Pradesh, West Bengal, Tamil Nadu, Punjab, Orissa, Sikkim, Kerala, Assam, Bihar) ; Myanmar ; Sri Lanka ; Pakistan ; China ; Thailand.*Food plants* : *Dregea volubilis*, *Calotropis* sp, *Hoya* Sp., *Marsdenia tenacissima*.Genus 5 : *Euploea* Fabricius, 18079. *Euploea core core* (Cramer)1780. *Papilio core* Cramer, *Pap. Exot.*, 3 : 133.*Common name* : The Common Indian Crow.*Material examined* : 5 exs., KNP, 22.1.1991, Coll. RKG (Reg. Nos. A/1917 to 1921) ; 2 exs. KNP, 2.12.1986 Coll. RKS (Reg. No. A/2679).*Distribution* : India (West Bengal, Andamans, Sikkim, Uttar Pradesh, Madhya Pradesh, Tamil Nadu, Orissa, Kerala, Karnataka, Bihar) ; Nepal ; Pakistan ; Myanmar.*Food plants* : *Streblus asper*, *Ficus bengalensis*, *F. glomerata*, *F. indica*, *F. religiosa*, *Holarrhena antidysenterica*, *Nerium odorum*, *N. oleander*, *Ichnocarpus frutescens*, *Hemidesmus indicus*, *Cryptolepis elegans*, *Anodendron paniculatum*, *Holigarna arnottiana*, *Cryptostegia grandiflora*.

## Family 3 : SATYRIDAE

Genus 6 : *Melanitis* Fabricius, 180710. *Melanitis leda ismene* (Cramer)1775. *Papilio ismene* Cramer, *Pap. Exot.*, 1 : 26.*Common name* : The Common Evening Brown.*Material examined* : 1 ex., KNP, 18.1.1991, Coll. RKS (Reg. No. A/1922); 1 ex., KNP, 30.11.1986, Coll. RKS (Reg. No. A/1955).*Distribution* : India (Andamans and Nicobars, Sikkim, Himachal Pradesh, West Bengal, Madhya Pradesh, Assam, Uttar Pradesh, Orissa, Tamil Nadu); Sri Lanka; Nepal; Myanmar; China; Indonesia.*Food plants* : Grasses, *Oryza sativa*.11. *Melanitis phedima bethami* de Niceville1887. *Melanitis bethami* de Nicéville, *Proc. zool. Soc. Lond.*, 1887 : 451.*Common name* : The Dark Evening Brown.*Material examined* : 2 exs., KNP, 30.11.1986, Coll. RKS (Reg. Nos. A\1956, 1957).*Distribution* : India (Madhya Pradesh).*Food plants* : Grasses.

## Family 4 : NYMPHALIDAE

Genus 7 : *Neptis* Fabricius, 180712. *Neptis soma* Moore1858. *Neptis soma* Moore, *Proc. zool. Soc. Lond.*, 1858 : 9.*Common name* : The Sullied Sailer.*Material examined* : 3 exs., KNP, 30.11.1986. Coll. RKS (Reg. Nos. A/1953, 1954, 1969).*Distribution* : India (Uttar Pradesh); Myanmar.*Food plants* : Not known.

Genus 8 : *Hypolimnas* Hubner, 1819

13. *Hypolimnas misippus* (Linnaeus)

1764. *Papilio misippus* Linnaeus, *Mus. Ulr.*, : 264.

*Common name* : The Danaid Eggfly.

*Material examined* : 1 ex., KNP, 30.1.1991, Coll. RKG (Reg. No. A/1923).

*Distribution* : India (Andamans and Nicobar, Tamil Nadu, Madhya Pradesh) ; Sri Lanka ; Pakistan ; Myanmar.

*Food plants* : *Portulaca oleracea*, *P. grandiflora*, *Abutilon* sp., *Hibiscus* sp.

Genus 9 : *Precis* Hubner, 1819

14. *Precis almana almana* (Linnaeus)

1758. *Papilio almana* Linnaeus, *Syst. Nat.* (ed. x) : 472.

*Common name* : The Peacock Pansy.

*Material examined* : 1 ex., KNP, 28.11.1986, Coll. RKS (Reg. No. A/1965).

*Distribution* : India (Andaman, Madhya Pradesh, Bihar) ; Sri Lanka ; Myanmar.

*Food plants* : *Asteracantha longifolia*, *Hygrophila* sp., *Barleria* sp., *Osbeckia* sp. *Osbeckia* sp.

15. *Precis atlites* (Linnaeus)

1763. *Papilio atlites* Linnaeus, *Cent. Ins.*, : 24.

*Common name* : The Grey Pansy.

*Material examined* : 2 exs., KNP, 28.11.1986, Coll. RKS (Reg. Nos. A/1967, 1968).

*Distribution* : India (Andaman & Nicobar, Madhya Pradesh, NE India. Along the foot of the Himalayas as far as west as Kalka, Peninsular India) ; Sri Lanka, Myanmar.

*Food plants* : *Asteracantha longifolia*, *Barleria* sp.

16. *Precis lemonias vaisya* Fruhstorfer

1912. *Precis vaisya* Fruhstorfer, In Seitz ; *Macrolepidoptera of the World*, 9 : 520.

*Common name* : The Lemon Pansy.

*Material examined* : 5 exs., KNP, 28.5.1964, Coll. HK (Reg. Nos. A/672 to 675 and 744) ; 3 exs., KNP, 2.12. 1986, Coll. RKS (Reg. Nos. A/1950 to 1952).

*Distribution* : India (South and Central India, Madhya Pradesh, Bihar, Jammu & Kashmir, Assam, West Bengal, Gujarat) ; Myanmar, Sri Lanka.

Food plants *Nelsonia campestris*, *Asteracantha longifolia*, *Sida rhombifolia*, *Strobilanthes* sp.

17. *Precis orithya swinhoei* (Butler)

1885. *Junonia orithya swinhoei* Butler, *Ann. Mag. nat. Hist.*, (5) 16 : 309.

Common name : The Blue Pansy.

Material examined : 1 ex., KNP, 28.11.1986, Coll. RKS (Reg. No. A/1966).

Distribution : India (Madhya Pradesh, South India, Bihar, recorded from all over the Indian region) ; Sri Lanka, Pakistan.

Food plants : *Justicia procumbens* ; *J. micrantha*, *Lepidagathis prostrata*.

Genus 10 : *Euthalia* Hubner, 1819

18. *Euthalia nais* (Forster)

1771. *Papilio nais* Forster, *Nov. Spec. Ins. Cent.*, 1 : 73.

Common name : The Baronet.

Material examined : 1 ex., KNP, 1.12.1986, Coll. RKS (Reg. No. A/2681).

Distribution : India (South India, Uttar Pradesh, Sikkim, Madhya Pradesh, Gujarat, Bihar, Karnataka) ; Sri Lanka.

Food plants : *Diospyros melanoxylon*, *Shorea robusta*.

Genus 11 : *Cynthia* Fabricius, 1807

19. *Cynthia cardui* (Linnaeus)

1758. *Paipilio cardui* Linnaeus, *Syst. Nat.*, (ed. X) : 475.

Common name : The Painted Lady.

Material examined : 1 ex., KNP, 1.12.1986, Coll. RKS (Reg. No. A/2680).

Distribution : India (Andamans, Madhya Pradesh, throughout India) ; Sri Lanka ; Myanmar.

Food plants : *Zornia diphylla*, *Debregeasia bicolor*, *D. hypoleuca*, *Girardinia heterophylla*, *Artemisia* sp., *Blumea* sp.

SUMMARY

The paper dealt herewith the fauna of butterflies, collected from Kanha National Park, districts Mandla and Balaghat of Madhya Pradesh. It reports 19 species in 11 genera and 4 families.



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### REFERENCES

- Evans, W.H. 1932. *The identification of Indian Butterflies*. Second revised ed ; Bombay Natural History Society, Bombay : 454 pp.
- Gupta, I.J. and Shukla, J.P.N. 1987. Butterflies from Bastar district (Madhya Pradesh). *Rec. zool. Surv. India*, Occ. paper No. 106 : 1-74.
- Singh, R.K. 1995. Insecta : Lapidoptera. *Zool. Surv. India, Fauna of Conservation Areas No. 7 : Fauna of Kanha Tiger Reserve* : 15-17.
- Talbot, G. 1939. *The Fauna of British India, including Ceylon and Burma, Butterflies*, Second ed., Taylor and Francis Ltd., London, 1 : 600 pp.
- Talbot, G. 1947. *The Fauna of British India, including Ceylon and Burma ; Butterflies*, Second ed., Taylor and Francis Ltd., London, 2 : 506 pp.
- Varshney, R.K. 1983. Index Rhopalocera Indica, Part II. Common names of butterflies from India and neighbouring countries. *Rec. zool. Surv. India*, Occ. Paper No. 47 : 1-49.
- Wynter-blyth, M.A. 1957. *Butterflies of the Indian Region*. Bombay Natural History Society, Bombay : 523 pp., 72 pls. (Published by Bombay Natural History Society, Bombay).