J. Insect Biodivers. Syst. 10 (3), 485–533 *https://jibs.modares.ac.ir*

OPEN ACCESS

Tarbiat Modares University Press | Research Article | https://doi.org/10.61186/jibs.10.3.485 | **ISSN**: 2423-8112
Entomological Society of Iran | Checklist | *https://zoobank.org/urn:lsid:zoobank.org:32A2BC52-3C57-441F-B6D4-FB6D98F67752*

An updated checklist of the hoverflies of Nepal (Diptera: Syrphidae)

Urmila Dyola
Central Department of Zoology, Tribhuvan University, Kirtipur, Kathmandu, Nepal.
✉ *dyolaurmila@gmail.com* *https://orcid.org/0000-0002-3934-7568*

Anjeela Pandey
Central Department of Zoology, Tribhuvan University, Kirtipur, Kathmandu, Nepal.
✉ *pandeyanjeela1@gmail.com* *https://orcid.org/0000-0003-2730-6678*

Taslima Sheikh
Department of Zoology, Sunrise University Alwar, Rajasthan 301026, India.
✉ *sheikhtass@gmail.com* *https://orcid.org/0000-0002-8112-1562*

Pradip Subedi
Central Department of Zoology, Tribhuvan University, Kirtipur, Kathmandu, Nepal.
✉ *pyaardeep29@gmail.com* *https://orcid.org/0000-0003-2375-9303*

Muhammad Asghar Hassan
Institute of Entomology, The Provincial Special Key Laboratory for Development and Utilization of Insect Resources, Guizhou University, Guiyang 550025, P.R. China.
✉ *kakojan112@gmail.com* *https://orcid.org/0000-0003-2590-5781*

ABSTRACT. An updated checklist of the hoverflies including distribution and seasonal occurence data of known species in Nepal is presented. The list is based on all available published literature on taxonomy, biodiversity, ecology, and biological aspects of the syrphid fauna of Nepal up to 2023. A total of 205 species from three subfamilies and 63 genera are known to occur in Nepal. Among the three subfamilies, Eristalinae shares maximum species (111 species, 54%), followed by Syrphinae (90 species, 44%), and Microdontinae (four species, 2%). is presented. Among these, 48 (23%) species are recorded in Nepal only. The distribution of known hoverfly species in the country is not uniform, with the Bagmati (82 species) and Koshi (75 species) provinces having the greatest number of species, while the Madhesh (four species) and Lumbini (one species) provinces having the lowest records. The highest number of species are recorded in May (51 species), followed by July (50 species) and June (48 species). Winter season records are relatively low, and distribution data are still incomplete for some sites. Based on the present review, comprehensive and systematic sampling across the entire country is necessary for further exploration of Nepal's hoverfly fauna.

Keywords: biogeography, Biocontrol, distribution, drone flies, flower flies, Himalayas

Received: 21 December, 2023
Accepted: 07 April, 2024
Published: 03 July, 2024
Subject Editor: Ebrahim Gilasian

Citation: Dyola, U., Pandey, A., Sheikh, T., Subedi, P. Hassan, M.A. (2024) An updated checklist of the hoverflies of Nepal (Diptera: Syrphidae). *Journal of Insect Biodiversity and Systematics*, 10 (3), 485–533.

INTRODUCTION

Hoverflies, members of the family Syrphidae, are currently grouped into four subfamilies, namely Microdontinae, Eristalinae, Pipizinae and Syrphinae (Mengual et al., 2015). They are a diverse and ecologically significant group of insects that play vital roles in pollination, ecological pest control, and as indicators of environmental health (Doyle et al., 2020; Vujić et al., 2022). The larvae of Syrphinae are

Corresponding author: Hassan, M.A., ✉ *kakojan112@gmail.com*

mainly aphidophagous and voraciously feed on thrips, psyllids, whiteflies, mealybugs, and springtails (Rojo et al., 2003). Globally, more than 6,300 species of hoverflies are known from all biogeographical regions of the world except Antarctica and remote oceanic islands (Pape et al., 2011; Skevington et al., 2019; Thompson, 2019; Mengual et al., 2023).

Nepal is a landlocked country located in Asia, with China to the north and India to the south, east, and west. The presence of Himalayas possess a diverse topography ranging from the flat plains of the Terai region that covers 17% of the total land of Nepal (Satyal, 2004) to the peaks of the world's highest mountain Mount Everest. The taxonomic history of the hoverfly fauna of Nepal dates back to 1907–1925, when Enrico Brunetti identified 21 species, including three new species for Nepal (Brunetti, 1908). Thereafter, Bhatia & Shaffi (1933), Coe (1964), Thompson (1966, 1974, 2012), Vockeroth (1971), Lambeck & Kiauta (1973), Knutson et al. (1975), Kapoor et al. (1979), Wiegmann (1986), Claussen & Weipert (2003, 2004), van Steenis & Hippa (2012), Ghorpadé (2015a), and Nielsen (2016) published several new hoverflies species for Nepal. Thapa (2015) and Ghorpadé (2015a) presented the first updated checklist on the Syrphidae of Nepal. Thapa (2015) listed 134 species under 55 genera, and Ghorpadé (2015a) listed 157 species in 71 genera. After that, van Steenis et al. (2018) reported five new species for Nepal. Similarly, Barkalov & Ståhls (2022) recorded 37 species for Nepal. Recently, Dyola et al. (2023) reported three additional hoverfly species for the country: *Graptomyza nigripes* (Brunetti, 1913), *Lycastris albipes* Walker, 1857 and *Volucella trifasciata* Wiedemann, 1830.

Taxonomic knowledge and distribution data of hoverflies from different regions and habitats are limited. Our primary objective is to provide a comprehensive taxonomic revision of hoverfly species in Nepal, through which we hope to inspire and guide future research. This checklist serves as a foundational resource for entomologists, conservationists, and policy makers interested in the preservation of Nepal's insect fauna and their associated ecosystems.

MATERIAL AND METHODS

The data compiled here are from several sources like scientific literature, online databases, and published books. For the checklist, compilation was primarily searched online through Google Scholar. Additionally, some literature was obtained from the Natural History Museum of Nepal. Unavailable literature was collected by direct request with authors via email. The nomenclature of hoverflies is according to Yang et al. (2020), Dawah et al. (2020), Mengual et al. (2020), van Steenis et al. (2018, 2021) and the latest published literature (Dyola et al., 2023; Barkalov & Ståhls, 2022)

The complete listing of hoverflies in Nepal is arranged per subfamily, and then alphabetically by genus, and species. The classification of subfamilies is according to Mengual et al. (2015). The distribution data is first followed by information within Nepal (Fig. 1) and then Zoogeographical distribution with references. For this distribution, the northern part of Nepal belongs to the Palaearctic region, while the southern part of China has been considered as part of the Oriental region. The seasonal activity of hoverflies in Nepal has been provided in this checklist for a comprehensive understanding of their seasonal patterns and behaviours within the region. Additionally, the endemic species are presented by asterisk (*). The locality of hoverflies, which is unknown in the country, is listed as “NEPAL” only in the distribution and “UNK” in Table 1 and Figure 3.

RESULTS

The current checklist includes 205 species of hoverflies for Nepal belonging to three subfamilies and 63 genera (Fig. 2; Table 1) with 48 endemic species (Appendix 1). Eristalinae dominates with 111 species (54%), followed by Syrphinae (90 species, 44%), and Microdontinae (four species, 2%). There is an uneven recording of hoverflies; Bagmati (82 species) and Koshi (75 species) provinces have the highest number of records, while Madhesh (four species) and Lumbini (one species) show the lowest (Table 1).

Table 1. Diversity of Nepalese Syrphidae by taxon rank and geopolitical unit: Kos = Koshi; Mad = Madhesh Province; Bag = Bagmati Province; Gan = Gandaki Province; Lum = Lumbini Province; Kar = Karnali Province; Sud = Sudurpashchim Province; UNK = Unknown Locality.

Subfamily	Nepal		Provinces (species count)							
	Genera	Species	Kos	Mad	Bag	Lum	Gan	Kar	Sud	UNK
Eristalinae	29	111	45	2	51	01	08	20	05	14
Microdontinae	03	04	01	01	03	–	–		–	–
Syrphinae	31	90	29	01	28	–	06	29	07	21
Total (Taxon count)	63	205	75	04	82	01	14	49	12	35

Checklist of hoverflies (Diptera: Syrphidae) of Nepal

Taxonomic hierarchy

Class Insecta Linnaeus, 1758

Order Diptera Linnaeus, 1758

Suborder Brachycera Macquart, 1834

Superfamily Syrphoidea Latreille, 1802

Family Syrphidae Latreille, 1802

Subfamily Microdontinae Rondani, 1845

Genus *Furcantenna* Cheng, 2008

Furcantenna nepalensis (Reemer, 2013) *

Furcantenna nepalensis Reemer & Ståhls, 2013:98. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Lalitpur District: Godawari (Reemer & Ståhls, 2013; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental.

Seasonal activity. August (Reemer & Ståhls, 2013).

Genus *Metadon* Reemer, 2013

Metadon annandalei (Brunetti, 1908)

Microdon annandalei Brunetti, 1908:91. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Soondarija (=Sundarijal); Bara District: Adhabar at 183m (Brunetti, 1908, 1923; Reemer & Ståhls, 2013; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA, NEPAL (Ghorpadé, 2014, 2015a, 2015b).

Seasonal activity. August and September (Brunetti, 1923).

Subgenus Microdon Meigen, 1803

Metadon (*Microdon*) *bellus* (Brunetti, 1923)

Microdon bellus Brunetti, 1923:315. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Sanghu at 1,889m (Coe, 1964; Thapa, 2015; Reemer & Ståhls, 2013; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA (Yang et al., 2020), INDIA, NEPAL (Ghorpadé, 2015a, 2015b).

Seasonal activity. January to September (Coe, 1964).

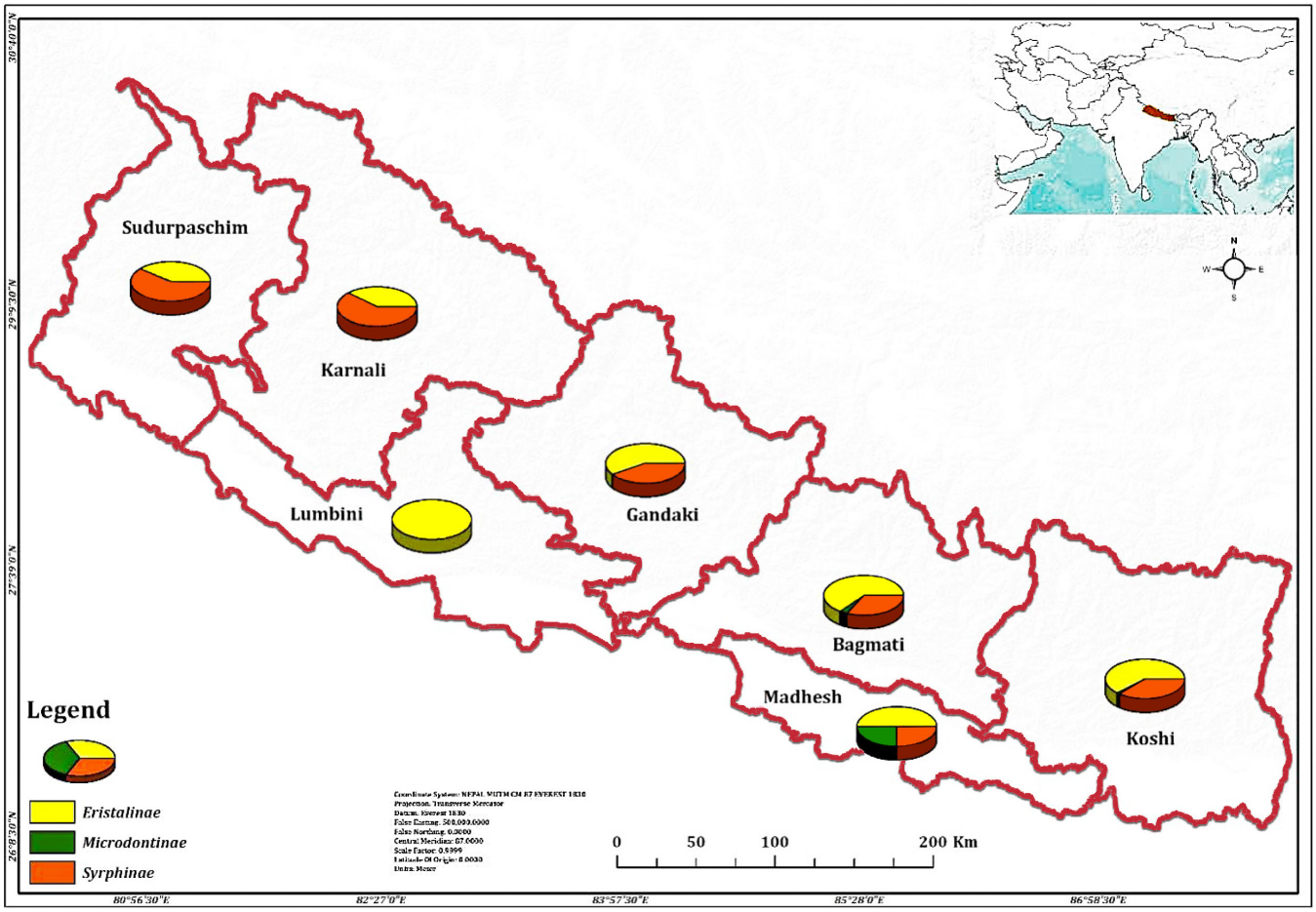

Figure 1. Distribution of species of three different subfamilies (Eristalinae, Microdontinae and Syrphinae) in different provinces of Nepal.

Genus *Spheginobaccha* de Meijere, 1908

Spheginobaccha chillcotti Thompson, 1974

Spheginobaccha chillcotti Thompson, 1974:274. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Balaju at 1,379m (Thompson, 1974; Reemer & Ståhls, 2013; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – CHINA (Yang et al., 2020), INDIA, NEPAL (Ghorpadé, 2015b).

Seasonal activity. June (Thompson, 1974).

Subfamily Eristalinae Newman, 1834

Genus *Blera* Billberg, 1820

Blera chillcotti (Thompson, 2012) *

Blera chillcotti Thompson, 2012:2. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District at 3,384 m (Thompson, 2012).

Zoogeographical distribution. Oriental.

Seasonal activity. June (Thompson, 2012).

Genus *Brachypalpoides* Hippa, 1978

Brachypalpoides makiana (Shiraki, 1930)

Zelima makiana Shiraki, 1930:65. Type locality: Taiwan.

Distribution in Nepal. NEPAL (Shrestha & Aryal, 2000; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – CHINA (Yang et al., 2020), INDIA (Ghorpadé, 2014, 2015a, 2015b).

Seasonal activity. March to October (Shrestha & Aryal, 2000).

Genus *Callicera* Panzer, 1809

Callicera nitens Coe, 1964

Callicera nitens Coe, 1964:287. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Sanghu at 2,804m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA (Sengupta et al., 2020), NEPAL (Thapa, 2015; Ghorpadé, 2014, 2015a).

Seasonal activity. November (Coe, 1964).

Callicera sanguinensis Coe, 1964 *

Callicera sanguinensis Coe, 1964:289. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Sanghu at 1,890m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. January to October (Coe, 1964).

Genus *Ceriana* Rafinesque, 1815

Ceriana ornatifrons (Brunetti, 1915)

Ceria ornatifrons Brunetti, 1915:252. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Makwanpur District at 200m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, SRI LANKA (Evenhuis & Pape, 2024; Ghorpadé, 2015b), PAKISTAN (Hassan et al., 2019b).

Seasonal activity. March (Brunetti, 1923).

Genus *Chalcosyrphus* Curran, 1925

Chalcosyrphus dimidiatus (Brunetti, 1923)

Xylota dimidiata Brunetti, 1923:232. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District; Jumla District: Maharigaon at 3,345m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA (Ghorpadé, 2015b; Sengupta et al., 2016).

Seasonal activity. January (Coe, 1964).

Chalcosyrphus nepalensis Hippa, 1978 *

Chalcosyrphus nepalensis Hippa, 1978:144. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Myagdi District: Shikha at 2,133-2,438m (Hippa, 1978; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Hippa, 1978).

Genus *Cheilosia* Meigen, 1822

Cheilosia albipicta Barkalov & Ståhls, 2022 *

Cheilosia albipicta Barkalov & Ståhls, 2022:14. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Lamjura Pass at 3,500 m, Tragdobuk from 3,200–3,000 m, Goyom above Sete at 3,100 m; Gorkha District: Bhimtang at 3,700m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia alpha Barkalov & Ståhls, 2022 *

Cheilosia alpha Barkalov & Ståhls, 2022:18. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District at 3,383m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May to June (Barkalov & Ståhls, 2022).

Cheilosia angusta Barkalov & Ståhls, 2022 *

Cheilosia angusta Barkalov & Ståhls, 2022:21. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Simikot and Chuma Khola at 2,950 m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia brevimontana Barkalov & Ståhls, 2022 *

Cheilosia brevimontana Barkalov & Ståhls, 2022:24. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Lager uber Bibre at 5,430m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. July to August (Barkalov & Ståhls, 2022).

Cheilosia collis Barkalov & Ståhls, 2022 *

Cheilosia collis Barkalov & Ståhls, 2022:27. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: above Pangum at 3,078m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia crassata Barkalov & Ståhls, 2022 *

Cheilosia crassata Barkalov & Ståhls, 2022:29. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: East Dingpoche at 4,400m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June and July (Barkalov & Ståhls, 2022).

Cheilosia difficilis Hervé-Bazin, 1929

Chilosia (*Cheilosia*) *difficilis* Hervé-Bazin, 1929:97. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District at 1,800 m, Bhojpur Phedi to Dilkharka from 1,500–1,900 m, Kathmandu District: Godavari 1,524m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental and Palaearctic – CHINA (Yang et al., 2020; Barkalov & Ståhls, 2022), NEPAL (Barkalov & Ståhls, 2022).

Seasonal activity. March to July (Barkalov & Ståhls, 2022).

Cheilosia distincta Barkalov & Cheng, 1998

Cheilosia (*Montanocheila*) *distincta* Barkalov & Cheng, 1998:313. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Solukhumbu District: Shibuche from 2,700–2,300 m, Ramechap District: Mohabir Khola E of Shivalaya from 2,500–2,600m, Humla District: Simikot at 2,400m, Kathmandu District: Phulchoki at 1,800m, Humla District: Gothigaon, Flussufer at 2,600m (Barkalov & Cheng, 1998).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, NEPAL (Barkalov & Cheng, 1998).

Seasonal activity. May to July (Barkalov & Ståhls, 2022).

Cheilosia egregia Barkalov & Cheng, 1998

Cheilosia (*Rubrocheila*) *egregia* Barkalov & Cheng, 1998:314. Type locality: China.

Distribution in Nepal. Oriental – NEPAL. Bojpur District at 1,900m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental – CHINA, NEPAL (Yang et al., 2020; Barkalov & Ståhls, 2022).

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia erratica Barkalov & Peck, 1997

Cheilosia erratica Barkalov & Peck, 1997:1173. Type locality: Tajikistan.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Jumla District: Maharigaon at 3,400 m, Kathmandu District: Bhurumche; 2,590–2,895m, Rasuwa District: Langtang-Himal, Rimche to Ghora Tabela from 2,500–3,000m, Darchula District: High camp before Api to camp at Chamliya Khola near Shinae from 3,400–2,800m, Prov. Gandaki, Bhimtang to Yak Kharka from 3,700–3,000m, Prov. Gandaki, Lho Bazar to Sama from 3,100–3,680m, Solukhumbu District: Junbesi to Ringmo from 2,700–3,000m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, NEPAL, TAJIKISTAN (Barkalov & Ståhls, 2022).

Seasonal activity. May to June (Barkalov & Ståhls, 2022).

Cheilosia falcata Barkalov & Ståhls, 2022 *

Cheilosia falcata Barkalov & Ståhls, 2022:42. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Maharigaon Nördl at 3,400m, Ludku from 2,500–2,900m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia flavigena Barkalov & Ståhls, 2022 *

Cheilosia flavigena Barkalov & Ståhls, 2022:45. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District at 3,017m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

***Cheilosia gilva* Barkalov & Ståhls, 2022 ***
Cheilosia gilva Barkalov & Ståhls, 2022:47. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Tragdobuk from 3,200–3,000m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

***Cheilosia longula* (Zetterstedt, 1838)**
Eristalis longulus Zetterstedt, 1838. Type locality: Sweden.

Distribution in Nepal. NEPAL (Shrestha & Aryal, 2000; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, JAPAN (Barkalov & Cheng, 2004; Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. March to October (Shrestha & Aryal, 2000).

***Cheilosia hauseri* Barkalov & Ståhls, 2022 ***
Cheilosia hauseri Barkalov & Ståhls, 2022:52. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: above Gudel from 2,000–2,500m, Sanam from 2,700–2,800m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May to June (Barkalov & Ståhls, 2022).

***Cheilosia himalayensis* (Brunetti, 1915)**
Eriozona himalayensis Brunetti, 1915:217. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,900–3,050m (Ghorpadé, 2015a; Thapa, 2015).

Zoogeographical distribution. Palaearctic – INDIA (Evenhuis & Pape, 2024; Ghorpadé, 2015b).

Seasonal activity. June and July (Ghorpadé, 2015a).

***Cheilosia illustratoides* Barkalov & Ståhls, 2022 ***
Cheilosia illustratoides Barkalov & Ståhls, 2022:56. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Bajura District: Simikot 19 km W of Kuwad Khola at 3,500m, Dolakha District: SW of Kalinchok Mt. at 3,100m, Humla District: Simikot, Chala at 3,500m, Humla District: Simikot, 2,400m, Karnali Province, Umg. Lager oberhalb Maharigaon from 3,300–3,400m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. July (Barkalov & Ståhls, 2022).

***Cheilosia indiana* (Bigot, 1883)**
Endoiasimyia indiana Bigot, 1883:153.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Pulchauk at 2,011m, Godavari at 1,828m, Solukhumbu District: above Pangum at 2,500m; – INDIA (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL (Barkalov & Ståhls, 2022).

Seasonal activity. May-July (Barkalov & Ståhls, 2022).

***Cheilosia indistincta* Barkalov & Ståhls, 2022 ***
Cheilosia indistincta Barkalov & Ståhls, 2022:61. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Bajura District: Simikot 19 km W of Kuwadi Khola at 3,500m, Simikot, Kuwadi Khola E of Saipal at 3,600m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia insolita Barkalov & Ståhls, 2022 *

Cheilosia insolita Barkalov & Ståhls, 2022:64. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Rasuwa District: Gosainkunde at 6,035m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia leucozonoides Barkalov & Ståhls, 2022 *

Cheilosia leucozonoides Barkalov & Ståhls, 2022:66. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: above Pangum from 2,900–3,000m, Dhading at 3,078–3,200m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia lucida Barkalov & Cheng, 1998

Cheilosia (*Convocheila*) *lucida* Barkalov & Cheng, 1998:318. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Solukhumbu district: above Nunthala from 2,500–2,300m, Bhojpur District: NW of Phedi from 1,900–1,500m, Kathmandu District: Pulchauki at 2,438m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, KOREA (Yang et al., 2020; Barkalov & Ståhls, 2022).

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia maculata Barkalov & Ståhls, 2022

Cheilosia maculata Barkalov & Ståhls, 2022:71. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu district: East Khumjung at 3,800m, East Dingpoche at 4,600m, Rasuwa District: Gosainkunde at 4,206m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia minuscula Barkalov & Ståhls, 2022 *

Cheilosia minuscula Barkalov & Ståhls, 2022:74. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Junbesi to Ringmo from 2,700–3,000m, Sanam from from 2,700–2,800m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia nepalensis Barkalov & Ståhls, 2022 *

Cheilosia nepalensis Barkalov & Ståhls, 2022:77. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District: Semjong at 3,383m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia nigella Barkalov & Ståhls, 2022 *

Cheilosia nigella Barkalov & Ståhls, 2022:81. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Simikot, Sankha La at 4,300m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia nigroaenea Brunetti, 1915

Chilosia nigroaenea Brunetti, 1915:204. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Khumjong at 3,871m and Dudhkosi at 3,140m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a); – INDIA (Ghorpadé, 2015b; Sengupta et al., 2017).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June and July (Coe, 1964).

Cheilosia pernigra Barkalov & Ståhls, 2022 *

Cheilosia pernigra Barkalov & Ståhls, 2022:84. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: East Dingpoche at 4,400m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia pica Barkalov & Ståhls, 2022

Cheilosia pica Barkalov & Ståhls, 2022:86. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: East of Pangkongma La at 3,000m, Sanam from 2,700–2,800m, Dhading District: Marpak at 3,200m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia picta Barkalov & Ståhls, 2022 *

Cheilosia picta Barkalov & Ståhls, 2022:90. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District: from 3,383–3,474m, Prov. Karnali, Umgebung Churta; 2,900–3,500m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia pilivena Barkalov & Ståhls, 2022 *

Cheilosia pilivena Barkalov & Ståhls, 2022:93. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District: at 3,383m, Solukhumbu District: Junbesi to Ringmo from 2,700–3,000m, Jumla District: Gothichaur; 2,900m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May to June (Barkalov & Ståhls, 2022).

Cheilosia procera Barkalov & Ståhls, 2022 *

Cheilosia procera Barkalov & Ståhls, 2022:97. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Maharigaon at 3,400 m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia quinta Barkalov & Cheng, 2004

Cheilosia (*Pollinocheila*) *quinta* Barkalov & Cheng, 2004:341. Type locality: China.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Hochtal Gothichaur 2,800–3,000m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, NEPAL (Barkalov & Ståhls, 2022).

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia rava Barkalov & Ståhls, 2022 *

Cheilosia rava Barkalov & Ståhls, 2022:103. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Darchula District: Chamliya Khola near Batar at 2,000m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia spinosa Barkalov & Ståhls, 2022 *

Cheilosia spinosa Barkalov & Ståhls, 2022:105. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: 3,300–3,400m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia spuria Barkalov & Ståhls, 2022 *

Cheilosia spuria Barkalov & Ståhls, 2022:109. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Shibuche 2,300–2,700m, Junbesi to Ringmo 2,700–3,000m, East of Pangkongma at 3,000m, Sanam from 2,700–2,800m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia suspecta Barkalov & Cheng, 2004

Cheilosia suspecta Barkalov & Cheng, 2004:317. Type locality: China.

Distribution in Nepal. Palaearctic – NEPAL. Rasuwa District: Gosainkunde at 4,511m, Dhading District: at 3,383m, Gorkha District: Namrung to Lho Baza from 2,580–3,100m; – CHINA (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, NEPAL (Barkalov & Cheng, 2004; Yang et al., 2020; Barkalov & Ståhls, 2022).

Seasonal activity. June (Barkalov & Ståhls, 2022).

Cheilosia vellea Barkalov & Ståhls, 2022 *

Cheilosia vellea Barkalov & Ståhls, 2022:113. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: SE Churta vor Pass at 3,400m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Barkalov & Ståhls, 2022).

Cheilosia versa Barkalov & Ståhls, 2022 *

Cheilosia versa Barkalov & Ståhls, 2022:116. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Godavari at 1,828m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Oriental.

Seasonal activity. August (Barkalov & Ståhls, 2022).

Cheilosia weiperti Barkalov & Ståhls, 2022 *

Cheilosia weiperti Barkalov & Ståhls, 2022:119. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Darchula District: Chamliya Khola at 2,800–3,400m (Barkalov & Ståhls, 2022).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Barkalov & Ståhls, 2022).

Genus *Endoiasimyia* Bigot, 1882

Endoiasimyia indiana Bigot, 1882

Endoiasimyia indiana Bigot, 1882:136. Type locality: India.

Distribution in Nepal. NEPAL (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA (Evenhuis & Pape, 2024; Ghorpadé, 2015a, 2015b).

Seasonal activity. May and June (Barkalov & Ståhls, 2022).

Genus *Eristalis* Latreille, 1804

Subgenus *Eoseristalis* Kanervo, 1939

Eristalis (*Eoseristalis*) *brevifacies* Coe, 1964

Eristalis brevifacies Coe, 1964:274. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: between Sanghu and Tamrang at 1,585m; Myagdi District: Ghodepani at 2,855m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, NEPAL (Ghorpadé, 2014, 2015a, 2015b; Sengupta et al., 2017).

Seasonal activity. October to November (Coe, 1964).

Eristalis (*Eoseristalis*) *cerealis* Fabricius, 1805

Eristalis cerealis Fabricius, 1805:232. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud at 1,800–2,300m; Nagarjun, 1,400–2,100m; Shivapuri, 1,700–2,300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m; Taplejung District: Sanghu at Tumlingtar plateau at 609m, Sankhuwasabha District: Chichila Arun valley; Lalitpur District: Godawari Botanical Garden at 1,400m, Phulchoki at 2,300–2,500m and Hotel Norrbu Linka at 1,350m, Kathmandu District: Thamel, Kritipur, Tribubvan at 1,400m; Kaski District: Ulleri at 2,070–1,800m and Pokhara at 900m, Myagdi: Ghodepani at 2,855m and Sikha at 2,850–1,920m; Dolpa District: Kaigaon to Rimi at 2,800–3,100m, Jumla District at 2,400m and Uthu at 2,500m (Brunetti, 1908; Coe, 1964; Lambeck & Kiauta, 1973; Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, PAKISTAN (Ghorpadé & Shehzad, 2013; Shehzad et al., 2017; Hassan et al., 2018a; Yang et al., 2020).

Seasonal activity. December to February (Coe, 1964; Lambeck & Kiauta, 1973; Kapoor et al., 1979).

Eristalis (*Eoseristalis*) *himalayensis* Brunetti, 1908

Eristalis himalayensis Brunetti, 1908:70. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Shivapuri at 1,700m and 2,300m; Nuwakot District: Gurjebhanjyang at 2,000m; Taplejung District: Sanghu at 1,981m and 2,804m Sankhuwasabha District: Chichila at 1,600–1,900m to Num, Solukhumbu District: Thangboche Gonda at 3,850m; Makawanpur District: Chitlang at 1,600; Kaski District: Pipar and Ulleri at 2,070–1,800m, Myagdi District: Ghodepani at 2,855m and Simikot at 2,300m, Dandaphaya Dharapani; Dolpa District: Gurung valley Hurikot at 3,100–3,600m, Humla District: Simikot at 2,200m, Phunki Drangka at 3,400m (Coe, 1964; Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2022, 2023).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, PAKISTAN, SRI LANKA (Shehzad et al., 2017; Hassan et al., 2018a; Sengupta et al., 2019; Yang et al., 2020).

Seasonal activity. July to December (Coe, 1964; Lambeck & Kiauta, 1973).

Eristalis (*Eoseristalis*) *intricarioides* Brunetti, 1923

Eristalis intricarioides Brunetti, 1923:171. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,850m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Thapa, 2015).

Eristalis (*Eoseristalis*) *simplicipes* Curran, 1928

Eristalis simplicipes Curran, 1928:300. Type locality: Malaysia.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: above Sanghu at 1,890m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – MALAYSIA, NEPAL (Ghorpadé, 2015b).

Seasonal activity. October (Coe, 1964).

Eristalis (*Eoseristalis*) *tibeticus* Violovitsh, 1976

Eristalis tibeticus Violovitsh, 1976:125. Type locality: China.

Distribution in Nepal. NEPAL (Ghorpadé, 2015a).

Zoogeographical distribution. Palaearctic – CHINA (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. July (Nielsen, 2001).

Subgenus *Eristalis* Latreille, 1804

Eristalis (*Eristalis*) *tenax* (Linnaeus, 1758)

Musca tenax Linnaeus, 1758:591. Type locality: Sweden.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud, 1,800–2,300m; Nagarjun 1,400–2,100m; Shivapuri, 1,700–2,300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m; Taplejung District: above Sanghu at 1,890–2,134m; Sankhuwasabha District: Arun Valley, Tumlingtar at 610m; Dolakha District: Hurikot Garpung valley at 2,700–3,000m and Churta at 3,400m, Sindhupalchok District: Helambu at 2,400m, Kathmandu District: Balaju, Kirtipur, Chhauni at 1,400m and Gokarna Safari, Lalitpur District: Godawari Botanical Garden at 1,400m, Phulchoki at 2,300–2,500m; Myagdi District: Sikha Ghodepani at 1,920–2,850m, Jumla at 2,200–2,400m, Uthu at 2,500 m, Kaigaon at 3,000m, Tatopani at 2,200m; Humla District: Simikot at 3,100m and Tuling Kermi at 2,300– 2,700m, Jumla District: Gothichour at 2,700–3,200m (Coe, 1964; Lambeck & Kiauta, 1973; Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Cosmopolitan.

Seasonal activity. February to December (Coe, 1964; Lambeck & Kiauta, 1973; Kapoor et al., 1979).

Genus *Eristalinus* Rondani, 1845

Eristalinus aeneus (Scopoli, 1763)

Conops aeneus Scopoli, 1763:356. Type locality: Slovenia [as "Carniola"].

Distribution in Nepal. Palaearctic – NEPAL. Kathmandu, Manichud, 18,00m; Sundarijal, 2,000m; Nuwakot Gurjebhanjyang, 1,600–2000m (Ghorpadé, 2015a; Budhathoki et al., 2021; Dyola et al., 2022, 2023).

Zoogeographical distribution. Cosmopolitan.

Seasonal activity. March to November (Dyola et al., 2023).

Eristalinus arvorum (Fabricius, 1787)

Syrphus arvorum Fabricius, 1787:335. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Sundarijal at 2,000m, Taplejung District: Sanghu at 1,889m; Sankhuwasabha District: below Tumlingtar at 548m Arun valley; Chitwan District: Sauraha at 180m, Makawanpur District: Hetauda at 430m, Kathmandu District: Chhauni and Taudaha at 1,350m, Phulchoki at 2,300– 2,500m and Hotel Norbu Linka at 1,350m Thamel; Jumla District: Gothichour at 2,800m (Coe, 1964; Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Australasian, Oriental and Palaearctic.

Seasonal activity. April to December (Coe, 1964).

Eristalinus megacephalus (Rossi, 1794)

Syrphus megacephalus Rossi, 1794:63. Type locality: Etruria = Toscana, Italy.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Sanghu at 1,889m; Kathmandu District at 1,350m (Coe, 1964; Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – AFGHANISTAN, INDIA, NEPAL, PAKISTAN (Ghorpadé, 2015b; Hassan et al., 2017).

Seasonal activity. July to October (Coe, 1964; Kapoor et al., 1979).

Eristalinus obliquus (Wiedemann, 1824)

Eristalis obliquus Wiedemann, 1824:38. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2015a).

Zoogeographical distribution. Oriental – INDIA, SRI LANKA (Ghorpadé, 2015b).

Seasonal activity. September to February (Ghorpadé, 2015b).

Eristalinus paria (Bigot, 1880)

Eristalomyia paria Bigot, 1880:218. Type locality: Sri Lanka.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Sanghu at 1981m; Kathmandu District: Chhauni, Pasupati area, and Gokarna Safari, Makawanpur District: Lothar at 200m; Ramechhap: Thodung at 3,200m; Dolpa District: Rimi at 2,900–3,100m to Chaurikot at 2,900–3,300m, Humla District: Simikot at 2,200m, Raya Simiko, Jumla District at 2,200–2,400m, Churta at 2,900–3,500m and Gothichour at 2,900–3,100m (Coe, 1964; Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, JAPAN, NEPAL, SRI LANKA (Ghorpadé, 2015b).

Seasonal activity. April to November (Coe, 1964; Lambeck & Kiauta, 1973).

Eristalinus quadristriatus (Macquart, 1846)

Eristalis quadristriatus Macquart, 1846:255. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Sanghu at 1,890m; Kathmandu District: Kirtipur (Coe, 1964; Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental – INDIA, NEPAL, SRI LANKA (Evenhuis & Pape, 2024; Ghorpadé, 2015b).

Seasonal activity. March to October (Coe, 1964; Kapoor et al., 1979).

Eristalinus quinquestriatus (Fabricius, 1794)

Syrphus quinquestriatus Fabricius, 1794:289. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Gokarna Safari, Hotel Norbu Linka at 1,350m, Thamel and Chhauni at 1,350m, Soyambhu; Dailekh District at 1,400–2,300m (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL (Ghorpadé, 2015a, 2015b).

Seasonal activity. August (Kapoor et al., 1979).

Eristalinus multifarius (Walker, 1852)

Eristalis multifarius Walker, 1852:248. Type locality: East Indies.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Sanghu at 1,980m and Dobhan at 1,220m; Kathmandu District: Gokarna Safari at 1,350m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL, SRI LANKA (Sengupta et al., 2017).

Seasonal activity. January (Coe, 1964).

Eristalinus taeniops (Wiedemann, 1818)

Eristalis taeniops Wiedemann, 1818:42. Type locality: South Africa: Cape of Good Hope.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Manichud at 1,800m (Thapa, 2015; Ghorpadé, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Widespread.

Seasonal activity. March (Dyola et al., 2023).

Eristalinus tarsalis (Macquart, 1855)

Eristalis tarsalis Macquart, 1855:107. Type locality: China.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Sanghu at 1585m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA (Yang et al., 2020), INDIA, NEPAL (Ghorpadé, 2015b), PAKISTAN (Hassan et al., 2018a).

Seasonal activity. April to July (Hassan et al., 2018a).

Genus *Eumerus* Meigen, 1822

Eumerus nepalensis Brunetti, 1908

Eumerus nepalensis Brunetti, 1908:76. Type locality: Nepal.

Distribution in Nepal. NEPAL (Brunetti, 1908, 1923; Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA (Ghorpadé, 2015b), PAKISTAN (Shehzad et al., 2017; Hassan et al., 2022).

Seasonal activity. July (Brunetti, 1923).

Genus *Ferdinandea* Rondani, 1844

Ferdinandea longifacies Coe, 1964

Ferdinandea longifacies Coe, 1964:266. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: above Sanghu at 2,804m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL (Ghorpadé, 2015a, 2015b).

Seasonal activity. November (Coe, 1964)

***Ferdinandea nepalensis* Claussen & Weipert, 2003 ***

Ferdinandea nepalensis Claussen & Weipert, 2003:365. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Maharigaon at 3,400m (Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Thapa, 2015).

Genus *Graptomyza* Wiedemann, 1820

***Graptomyza brevirostris* Wiedemann, 1820**

Graptomyza brevirostris Wiedemann, 1820:17. Type locality: Indonesia (Java)

Distribution in Nepal. NEPAL (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, INDONESIA, PAKISTAN, SRI LANKA (Evenhuis & Pape, 2024; Ghorpadé, 2015b; Hassan et al., 2020).

Seasonal activity. November (Hassan et al., 2020).

***Graptomyza nigripes* (Brunetti, 1913)**

Graptomyza nigripes Brunetti, 1913a:167. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Sundarijal from 2000m (Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL (Ghorpadé, 2015b; Dyola et al., 2023).

Seasonal activity. October (Dyola et al., 2023).

Genus *Kertesziomyia* Shiraki, 1930

***Kertesziomyia aenous* (Brunetti, 1907) ***

Helophilus aeneus Brunetti, 1923:66. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Sundarijal at 1,400–2,000m (Brunetti, 1908; Ghorpadé, 2014; Thapa, 2015).

Zoogeographical distribution. Oriental.

Seasonal activity. October (Brunetti, 1923).

***Kertesziomyia nigra* (Wiedemann, 1824)**

Eristalis niger Wiedemann, 1824:38. Type locality: Indonesia (Java)

Distribution in Nepal. NEPAL (Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA, INDONESIA (Ghorpadé, 2015b; Sengupta et al., 2018).

Seasonal activity. Not available.

Genus *Korinchia* Edwards, 1919

***Korinchia himalayensis* Steenis & Hippa, 2012**

Korinchia himalayensis Steenis & Hippa, 2012:229. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District (Ghorpadé, 2014); – CHINA (van Steenis & Hippa, 2012; Yang et al., 2020).

Zoogeographical distribution. Palaearctic – CHINA, NEPAL (van Steenis & Hippa, 2012; Yang et al., 2020).

Seasonal activity. May (van Steenis & Hippa, 2012).

Genus *Lycastris* Walker, 1857

Lycastris albipes Walker, 1857

Lycastris albipes Walker, 1857:155. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu: Shivapuri at 2,300m; Sundarijal from 1,500m (Dyola et al., 2023).

Zoogeographical distribution. Oriental.

Seasonal activity. April (Dyola et al., 2023).

Lycastris flavohirta Brunetti, 1907

Lycastris flavohirta Brunetti, 1907:16. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Shivapuri at 1,700m, Sundarijal at 1,500m, Taplejung District: above Sangu at 2,804m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL (Ghorpadé, 2015b).

Seasonal activity. November (Coe, 1964).

Genus *Mesembrius* Rondani, 1857

Mesembrius bengalensis (Wiedemann, 1819)

Eristalis bengalensis Wiedemann, 1819:16. Type locality: India (Bengal).

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Shivapuri at 1,900 m, Sundarijal at 1,500 m, Banke District: Hotel Batika at 170m Nepalgunj (Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental – INDIA, NEPAL (Ghorpadé, 2014, 2015a; Sengupta et al., 2019; Dyola et al., 2023).

Seasonal activity. July (Thapa, 2015).

Mesembrius quadrivittatus (Wiedemann, 1819)

Eristalis quadrivittatus Wiedemann, 1819:17. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Chhauni at 1,400m and Taudhara at 1,350m (Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL, PAKISTAN (Hassan et al., 2017; Shehzad et al., 2017; Sengupta et al., 2019).

Seasonal activity. September and October (Lambeck & Kiauta, 1973).

Genus *Milesia* Latreille, 1804

Milesia balteata Kertész, 1901

Milesia balteata Kertész, 1901:414. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Kirtipur at 1,400m, Sundarijal at 1,400–2,000m (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA, NEPAL (Ghorpadé, 2015a, 2015b).

Seasonal activity. October (Kapoor et al., 1979).

Milesia brunetti Hervé-Bazin, 1923

Milesia brunetti Hervé-Bazin, 1923:26. Type locality: Loas.

Distribution in Nepal. NEPAL (Ghorpadé, 2014; Thapa, 2015).

Zoogeographical distribution. Oriental – LAOS (Ghorpadé, 2015b).

Seasonal activity. March (Thapa, 2015).

***Milesia ferruginosa* Brunetti, 1913**
Milesia ferruginosa Brunetti, 1913:268. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA (Evenhuis & Pape, 2024; Ghorpadé, 2014, 2015a).

Seasonal activity. April and May (Brunetti, 1913).

Genus *Monoceromyia* Shannon, 1922

***Monoceromyia javana* (Wiedemann, 1824)**
Ceria javana Wiedemann, 1824:32. Type locality: Indonesia (Java)

Distribution in Nepal. Oriental – NEPAL. Makwanpur District Lothar at 200m (Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental – INDIA, INDONESIA, NEPAL (Brunetti, 1923; Kapoor et al., 1979; Ghorpadé, 2014, 2015b; Sankararaman et al., 2020).

Seasonal activity. September (Thapa, 2015).

***Monoceromyia obscura* (Brunetti, 1907)**
Ceria obscura Brunetti, 1907:380. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Dolakha District: Bi–Khola at 2,280–2,700m (Coe, 1964; Thapa, 2015; Ghorpadé, 2015a.

Zoogeographical distribution. Palaearctic – INDIA, NEPAL (Ghorpadé, 2014, 2015b; Sengupta et al., 2016; Sankararaman et al., 2020).

Seasonal activity. May (Coe, 1964).

***Monoceromyia polistoides* (Brunetti, 1923)**
Ceria polistoides Brunetti, 1923:335. Type locality: India.

Cerioides multipunctata Hull, 1941: 163. Type locality: India.

Distribution in Nepal. NEPAL (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, PAKISTAN (Ghorpadé, 2015b; Shehzad et al., 2017; Sankararaman et al., 2020).

Seasonal activity. May (Brunetti, 1923).

Genus *Myathropa* Rondani, 1845

***Myathropa semenovi* Smirnov, 1925**
Myiatropa semenovi Smirnov, 1925:295. Type locality: Uzbekistan.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Chumsa Khola at 2,950m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – UZBEKISTAN (Ghorpadé, 2015b).

Seasonal activity. June and June (Thapa, 2015).

Genus *Myolepta* Newman, 1838

***Myolepta graciliventris* Wiegmann, 1986 ***
Myolepta graciliventris Wiegmann, 1986:378. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Sundarijal (Wiegmann, 1986; Ghorpadé, 2014, 2015a; Hassan et al., 2021).

Zoogeographical distribution. Oriental.

Seasonal activity. May (Wiegmann, 1986).

Genus *Orthonevra* Macquart, 1829

Orthonevra himalayensis Nielsen, 2001

Orthonevra himalayensis Nielsen, 2001:13. Type locality: China.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District (Nielsen, 2001; Ghorpadé, 2015a).

Zoogeographical distribution. Palaearctic – CHINA, NEPAL (Nielsen, 2001; Yang et al., 2022).

Seasonal activity. July (Nielsen, 2001).

Orthonevra karnaliensis Weipert & Claussen, 2006 *

Orthonevra karnaliensis Weipert & Claussen, 2006:320. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Hochtal Gothichaur at 2,900–3,100m (Weipert & Claussen, 2006; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May and June (Ghorpadé, 2015b).

Genus *Pararctophila* Hervé-Bazin, 1914

Pararctophila oberthueri Hervé-Bazin, 1914

Pararctophila oberthueri Hervé-Bazin, 1914:153. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – CHINA, INDIA, PAKISTAN (Shehzad et al., 2017; Ghorpadé, 2014, 2015a).

Seasonal activity. May and July (Ghorpadé, 2015b).

Genus *Phytomia* Guerin-Meneville, 1833

Phytomia crassa (Fabricius, 1787)

Syrphus crassus Fabricius, 1787:334. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Chauni at 1,400m (Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA, NEPAL, SRI LANKA (Sengupta et al., 2018).

Seasonal activity. September (Lambeck & Kiauta, 1973).

Phytomia errans (Fabricius, 1787)

Syrphus errans Fabricius, 1787:337. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: between Sanghu at 1,850m, Sankhuwasabha District: Arun Valley, Tumlingtar at 610m; Kathmandu District: Chhauni at 1,400m, Shivapuri at 1,900 m; Nuwakot District: Gurjebhanjyang at 1,600 m (Coe, 1964; Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2022, 2023).

Zoogeographical distribution. Oriental – CHINA, NEPAL (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. September to December (Coe, 1964; Lambeck & Kiauta, 1973; Ghorpadé, 2015b).

Phytomia zonata (Fabricius, 1787)

Syrphus zonatus Fabricius, 1787:337. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Sanghu at 1,850m and Dobhan at 2,076m; Kathmandu District: Shivapuri at 2,300m, Sundarijal at 1,500 m, Chhauni at 1,400m, Nuwakot District: Manichud at 1,800m (Coe, 1964; Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, JAPAN, NEPAL (Evenhuis & Pape, 2024).

Seasonal activity. October to January (Coe, 1964; Lambeck & Kiauta, 1973).

Genus *Psilota* Meigen, 1822

Psilota shewelli Thompson, 2012 *

Psilota shewelli Thompson, 2012:6. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Parsa District at 137m.

Zoogeographical distribution. Oriental – INDIA, NEPAL (Thompson, 2012).

Seasonal activity. September (Thompson, 2012).

Genus *Pseudovolucella* Shiraki, 1930

Pseudovolucella decipiens (Hervé–Bazin, 1914)

Arctophila decipiens Herve-Bazin, 1914:410. Type locality: Japan.

Distribution in Nepal. NEPAL (Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – JAPAN, KOREA (Reemer & Hippa, 2008; Ghorpadé, 2015a).

Seasonal activity. March to October (Shrestha & Aryal, 2000).

Pseudovolucella hingstoni Coe, 1964

Pseudovolucella hingstoni Coe, 1964:270. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: above Sanghu at 2,804m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, NEPAL (Reemer & Hippa, 2008).

Seasonal activity. May to November (Reemer & Hippa, 2008).

Genus *Rhingia* Scopoli, 1763

Rhingia binotata Brunetti, 1908

Rhingia binotata Brunetti, 1908:59. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Sanghu at 1,890m and Tamrang Bridge at 1,690m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, NEPAL (Sengupta et al., 2017).

Seasonal activity. October and November (Coe, 1964).

Rhingia creutzburgi Claussen & Weipert, 2003 *

Rhingia creutzburgi Claussen & Weipert, 2003:367. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Bajura District: Malikathan at 4,100m Simikot (Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. July (Claussen & Weipert, 2003).

Rhingia laticincta Brunetti, 1908

Rhingia laticincta var. fasciata Brunetti, 1908:58. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: above Sanghu at 2,638m and below Sanghu at 1,828m; Ramechhap District: Thodung at 2,200m; Myagdi District, Manang District: Ghodepani, Sikha at 1,920–2,850m, Chame/Pisang at 2,700–3,200m; Humla District: Chala Sankha La at 4,400–4,700m (Coe, 1964; Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL (Ghorpadé, 2014, 2015a, 2015b; Sengupta et al., 2017).

Seasonal activity. June to December (Coe, 1964; Claussen & Weipert, 2003).

Rhingia longifacies Claussen & Weipert, 2003 *
Rhingia longifacies Claussen & Weipert, 2003:370. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,900m (Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Claussen & Weipert, 2003).

Rhingia siwalikensis Nayar, 1968
Rhingia siwalikensis Nayar, 1968:126. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Nuwakot District: Gurjebhanjyang at 2,000m, Myagdi District: Ghodepani at 2,855m (Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL, PAKISTAN (Ghorpadé, 2014, 2015a, 2015b; Hassan et al., 2018a).

Seasonal activity. October (Claussen & Weipert, 2003).

Genus *Sphegina* Meigen, 1822

Sphegina abbreviata Steenis, Hippa & Mutin, 2018 *
Sphegina abbreviata Steenis, Hippa & Mutin, 2018:17. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District (van Steenis et al., 2018).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (van Steenis et al., 2018).

Sphegina angustata Steenis, Hippa & Mutin, 2018 *
Sphegina angustata Steenis, Hippa & Mutin, 2018:20. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District (van Steenis et al., 2018).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (van Steenis et al., 2018).

Sphegina bispinosa Brunetti, 1915
Sphegina bispinosa Brunetti, 1915:223. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Bhojpur District (van Steenis et al., 2018)

Zoogeographical distribution. Oriental and Palaearctic – BHUTAN, INDIA, NEPAL (van Steenis et al., 2018).

Seasonal activity. April to July (van Steenis et al., 2018).

Sphegina hansoni Thompson, 1966 *
Sphegina hansoni Thompson, 1966:42. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Makwanpur District: Parewavir at 570m (Thompson, 1966; Thapa, 2015; Ghorpadé, 2014, 2015).

Zoogeographical distribution. Oriental.

Seasonal activity. March (van Steenis et al., 2018).

Sphegina hauseri Steenis, Hippa & Mutin, 2018 *
Sphegina hauseri Steenis, Hippa & Mutin, 2018:96. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District (van Steenis et al., 2018).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May-June (van Steenis et al., 2018).

Sphegina setosa Steenis, Hippa & Mutin, 2018

Sphegina setosa Steenis, Hippa & Mutin, 2018:155. Type locality: Nepal.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District (van Steenis et al., 2018).

Zoogeographical distribution. Oriental – INDIA, NEPAL (van Steenis et al., 2018).

Seasonal activity. June (van Steenis et al., 2018).

Genus *Syritta* Lepeletier & Serville, 1828

Syritta indica (Wiedemann, 1824)

Eumerus indica Wiedemann, 1824:33. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Manichud at 1,800 m, Nagarjun at 1,400–2,100m; Shivapuri, 1,700–2,300 m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m (Ghorpadé et al., 2011; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental – CHINA, INDIA, NEPAL (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. March to October (Dyola et al., 2023).

Syritta orientalis Macquart, 1842

Syritta orientalis Macquart, 1842:76. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Manichud, 1,800–2,300m; Nagarjun, 1,400–2,100m; Shivapuri, 1,700–1,900m; Sundarijal, 2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m (Dyola et al., 2023).

Zoogeographical distribution. Oriental – INDIA, NEPAL, PAKISTAN, SRI LANKA (Ghorpadé, 2015a, 2015b; Hassan et al., 2017; Shehzad et al., 2017).

Seasonal activity. March to November (Dyola et al., 2023).

Syritta pipiens (Linnaeus, 1758)

Musca pipiens Linnaeus, 1758:594. Type locality: Sweden.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Chauni at 1,400m; Nagarjun, 1,400–1,600m; Shivapuri, 1,700–2,300m; Sundarijal, 1,800–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m; Jumla District: Gothichour at 2,900–3,050m and Tripurakot at 2,500m, Humla District: Simikot at 3,100m (Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Cosmopolitan.

Seasonal activity. September and October (Lambeck & Kiauta, 1973).

Genus *Volucella* Geoffroy, 1762

Volucella lividiventris Brunetti, 1908

Volucella lividiventris Brunetti, 1908:62. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2015a).

Zoogeographical distribution. Oriental – INDIA (Ghorpadé, 2015b; Sengupta et al., 2016).

Seasonal activity. Not available.

Volucella trifasciata Wiedemann, 1830

Volucella trifasciata Wiedemann, 1830:196. Type locality: Indonesia: Java.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Sundarijal from 1,500m (Dyola et al., 2023).

Zoogeographical distribution. Oriental.

Seasonal activity. October (Dyola et al., 2023).

Volucella varipila Coe, 1964

Volucella varipila Coe, 1964:268. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Khumbu and Khumjong at 3657m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, NEPAL (Ghorpadé, 2014, 2015a, 2015b; Sengupta et al., 2016).

Seasonal activity. June (Coe, 1964).

Subfamily Syrphinae

Genus *Allobaccha* Curran, 1928

Allobaccha apicalis (Loew, 1858)

Baccha apicalis Loew, 1858:106. Type locality: Japan.

Distribution in Nepal. NEPAL (Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, JAPAN, SRI LANKA (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. April to September (Ghorpadé, 2015a).

Allobaccha elegans (Brunetti, 1915)

Baccha elegans Brunetti, 1915:220. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 1994, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA (Ghorpadé, 2015a, 2015b).

Seasonal activity. July to September (Ghorpadé, 2015a).

Allobaccha triangulifera (Austen, 1893)

Baccha triangulifera Austen, 1893:138. Type locality: Sri Lanka.

Distribution in Nepal. NEPAL (Ghorpadé, 2014; Thapa, 2015).

Zoogeographical distribution. Oriental – INDIA, SRI LANKA (Ghorpadé, 2015b).

Seasonal activity. July (Ghorpadé, 2015a).

Genus *Allograpta* Osten Sacken, 1875

Allograpta javana (Wiedemann, 1824)

Syrphus javanus Wiedemann, 1824:34. Type locality: Indonesia (Java)

Distribution in Nepal. Palaearctic – NEPAL. Sankhuwasabha District: Num at 850m Arun valley (Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, INDONESIA, JAPAN, NEPAL, SRI LANKA (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. November (Claussen & Weipert, 2003).

Allograpta maculipleura (Brunetti, 1913)

Syrphus maculipleura Brunetti, 1913:162. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Kirtipur Horticulture Farm (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA, NEPAL (Evenhuis & Pape, 2024; Ghorpadé, 2015a).

Seasonal activity. November (Kapoor et al., 1979).

Genus *Asarkina* Macquart, 1842

Asarkina bhima Ghorpadé, 1994

Asarkina bhima Ghorpadé, 1994:7. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 1994, 2014, 2015a).

Zoogeographical distribution. Oriental – BHUTAN, INDIA (Ghorpadé, 1994, 2015a).

Seasonal activity. July to October (Ghorpadé, 2015a).

Asarkina ericetorum (Fabricius, 1781)

Syrphus ericetorum Fabricius, 1781:425. Type locality: Africa.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District (Coe, 1964; Thapa, 2015).

Zoogeographical distribution. Afrotropica, Oriental and Palaearctic.

Seasonal activity. October and November (Coe, 1964).

Asarkina incisuralis Macquart, 1855

Syrphus incisuralis Macquart, 1855. Type locality: Java.

Distribution in Nepal. Oriental – NEPAL. Nuwakot District: Gurjebhanjyang at 1,600m (Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – BANGLADESH, INDIA, NEPAL, PAKISTAN, SRI LANKA (Hassan et al., 2018a).

Seasonal activity. April (Dyola et al., 2023).

Asarkina porcina (Coquillett, 1898)

Syrphus porcina Coquillett, 1898:322. Type locality: Japan.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Nagarjun at 1,600m, Sundarijal at 1,500m; Nuwakot District: Gurjebhanjyang at 1,600m (Ghorpadé, 2014, 2015a; Dyola et al., 2022, 2023).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, JAPAN, NEPAL, SRI LANKA (Ghorpadé, 2015b).

Seasonal activity. May to August (Ghorpadé, 2015a).

Genus *Asiobaccha* (Violovitsh, 1976)

Asiobaccha nubilipennis (Austen, 1893)

Baccha nubilipennis Austen, 1893:136. Type locality: Sri Lanka.

Distribution in Nepal. NEPAL (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, SRI LANKA (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. Not available.

Genus *Baccha* Fabricius, 1805

Baccha maculata Walker, 1852

Baccha maculata Walker, 1852:3. Type locality: East Indies.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Nagarjun at 1,400m; Taplejung District: Sanghu at 1,890m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – EAST INDIES, CHINA, INDIA, NEPAL, PAKISTAN (Ghorpadé, 2015b; Hassan et al., 2019a; Sengupta et al., 2019).

Seasonal activity. September and October (Coe, 1964; Dyola et al., 2023).

Genus *Betasyrphus* Matsumura & Adachi, 1917

Betasyrphus aeneifrons (Brunetti, 1913)

Syrphus aeneifrons Brunetti, 1913:159. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Sankhuwasabha District: Chichila at 1,600–1,900m and Uwa at 1,100m; Kathmandu District: Kirtipur at 1,400m; Mugu District: Mugu lakeside at 2,945m (Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL, PAKISTAN (Hassan et al., 2018a).

Seasonal activity. June to December (Claussen & Weipert, 2003).

Betasyrphus bazini (Brunetti, 1925)

Pipizella rufiventris Brunetti, 1915:202. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Tumlingtar plateau at 609m and Uwa at 1,100m (Coe, 1964; Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL (Ghorpadé, 2015b).

Seasonal activity. December (Coe, 1964; Claussen & Weipert, 2003).

Betasyrphus isaaci (Bhatia, 1933)

Syrphus isaaci Bhatia, 1933:566. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,800–3,100m and Khari at 3,285m, Mugu District: Rara lake area at 2945m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL, PAKISTAN (Ghorpadé & Shehzad, 2013; Hassan et al., 2017; Shehzad et al., 2017).

Seasonal activity. June (Thapa, 2015).

Betasyrphus serarius (Wiedemann, 1830)

Syrphus serarius Wiedemann, 1830:128. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Sundarijal at 1,500m; Taplejung District: Sanghu at 1,900m; Bhaktapur District: Nagarkot at 2,200m, Kathmandu District: Sundarijal at 1,400–2,000m (Coe, 1964; Thapa, 2015; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, NEPAL (Ghorpadé, 2015b).

Seasonal activity. April to October (Coe, 1964; Dyola et al., 2023).

Genus *Chrysotoxum* Meigen, 1803

Chrysotoxum antiquum Walker, 1852

Chrysotoxum antiquum Walker, 1852:218. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, PAKISTAN (Ghorpadé, 2015b; Shehzad et al., 2017).

Seasonal activity. August (Ghorpadé, 2015a).

Chrysotoxum baphyrum Walker, 1849

Chrysotoxum baphyrus Walker 1849:542. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Tumlingtar plateau at 609m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, PAKISTAN, NEPAL, SRI LANKA (Ghorpadé & Shehzad, 2013; Ghorpadé, 2015b; Shehzad et al., 2017; Hassan et al., 2018a).

Seasonal activity. December (Coe, 1964).

Chrysotoxum convexum Brunetti, 1915

Chrysotoxum convexum Brunetti, 1915:249. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2015a).

Zoogeographical distribution. Oriental – INDIA (Ghorpadé, 2015a, 2015b).

Seasonal activity. June (Ghorpadé, 2015a).

Genus *Citrogramma* Vockeroth, 1969

Citrogramma citrinum (Brunetti, 1923)

Xanthogramma citrinum Brunetti, 1923:95. Type localities: India and Bhutan.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Kirtipur at 1,400m (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA (Ghorpadé & Shehzad, 2013).

Seasonal activity. July (Kapoor et al., 1979).

Citrogramma clarum (Hervé-Bazin, 1923)

Olbiosyrphus clarus Hervé-Bazin, 1923:25. Type locality: Vietnam.

Distribution in Nepal. NEPAL (Ghorpadé, 1994, 2014, 2015a).

Zoogeographical distribution. Oriental – VIETNAM (Ghorpadé, 2015a, 2015b).

Seasonal activity. July (Ghorpadé, 2015a).

Genus *Dasysyrphus* Enderlein, 1938

Dasysyrphus orsua (Walker, 1852)

Syrphus orsua Walker, 1852:231. Type locality: East Indies.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud, 1,800–2,300m; Nagarjun, 1,400–2,100m; Shivapuri, 1,700m; Shivapuri, 1,900–2300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m; Taplejung District: Sanghu at 15,85m and above at 1,890m; Myagdi District: Ghodepani at 2,855m; Jumla District: Churta at 2,900–3,500m, Gothichour at 2,900m, Khari at 3,285m and Maharigaon at 3,220m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, NEPAL, SRI LANKA (Evenhuis & Pape, 2024; Ghorpadé, 2015a).

Seasonal activity. February to November (Coe, 1964; Dyola et al., 2023).

Dasysyrphus sublunulatus (Peck, 1966)

Syrphus sublunulatus Peck, 1966:190. Type locality: Kyrgyzstan.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,900m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – KYRGYZSTAN (Evenhuis & Pape, 2024).

Seasonal activity. May to August (Ghorpadé, 2015a).

Genus *Didea* Macquart, 1834

Didea fasciata Macquart, 1834

Didea fasciata Macquart, 1834:508. Type locality: France.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Chovar at 1,450m (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental, Palaearctic, Nearctic.

Seasonal activity. April (Kapoor et al., 1979).

Didea subalneti Claussen & Weipert, 2003

Didea subalneti Claussen & Weipert, 2003:350. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,800m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Thapa, 2015).

Genus *Dideoides* Brunetti, 1908

Dideoides kempi Brunetti, 1923

Dideoides kempi Brunetti, 1923:59. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: above Sanghu at 2,804m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, NEPAL (Ghorpadé, 1994).

Seasonal activity. November (Coe, 1964).

Genus *Dideopsis* Matsumura, 1917

Dideopsis aegrota (Fabricius, 1805)

Eristalis aegrota Fabricius, 1805:243. Type locality: India.

Distribution in Nepal. NEPAL (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, INDONESIA (Ghorpadé, 2014, 2015a, 2015b; Sengupta et al., 2016; Yang et al., 2020).

Seasonal activity. August (Coe, 1964).

Genus *Eosphaeropshoria* Frey, 1946

Eosphaerophoria punctata Claussen & Weipert, 2003 *

Eosphaerophoria punctata Claussen & Weipert, 2003:352. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Kaski District: Pokhara, Annapurna region at 1,700m (Mengual & Ghorpadé, 2010; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. November (Mengual & Ghorpadé, 2010).

Genus *Epistrophe* Walker, 1852

Epistrophe aequalis (Walker, 1852)

Xylota aequalis Walker, 1852:226. Type locality: East Indies.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbu District: Tengpoche and Gonda at 3,850m (Lambeck & Kiauta, 1973; Thapa, 2015).

Zoogeographical distribution. Palaearctic.

Seasonal activity. November (Lambeck & Kiauta, 1973).

Epistrophe griseocinctus (Brunetti, 1923)

Syrphus griseocinctus Brunetti, 1923:77. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, MYANMAR (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. April (Brunetti, 1923).

Genus *Epistrophella* Dušek & Láska, 1967

Epistrophella shibakawae (Matsumura, 1917)

Syrphus shibakawae Matsumura, 1917. Type locality: Japan.

Distribution in Nepal. NEPAL (Ghorpadé, 2014).

Zoogeographical distribution. Palaearctic – JAPAN (Thompson & Vockeroth, 1989).

Seasonal activity. July and August (Ghorpadé, 2015a).

Genus *Episyrphus* Matsumura & Adachi, 1917

Episyrphus arcifer (Sack, 1927)

Syrphus arcifer Sack, 1927:306. Type locality: China (Kankau and Fuhosho, Taiwan).

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Godavari at 5,000m (Ghorpadé, 2015a).

Zoogeographical distribution. Oriental – CHINA, SRI LANKA, NEPAL (Ghorpadé, 2014, 2015a; Yang et al., 2020).

Seasonal activity. June (Ghorpadé, 2015a).

Episyrphus balteatus (De Geer, 1776)

Musca balteata De Geer, 1776:116. Type locality: Sweden.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud, 1,800–2,300m; Nagarjun, 1,400–2,100m; Shivapuri, 1,700–2,300 m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m; Taplejung District: Sanghu and Tamrang at 1,585m; Kathmandu District: Guheswari at 1,300m, Godawari, Chhauni, Kirtipur and Balaju, Sindhupalchok District: Helambu at 2,400m; Manang District: Chame at 2,700–3,200m Pisang; Mugu District: Rara lake at 2,945m; Jumla: Gothichour at 2,800–3,100m and Maharigaon at 3,220m; Bajura District: Kuwadi Khola at 2,900m (Coe, 1964; Lambeck & Kiauta, 1973; Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Cosmopolitan.

Seasonal activity. March to November (Coe, 1964; Lambeck & Kiauta, 1973; Kapoor et al., 1979; Dyola et al., 2023).

Episyrphus viridaureus (Wiedemann, 1824)

Syrphus viridaureus Wiedemann, 1824:35. Type locality: Indonesia (Java)

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud, 1,800–2,300m; Nagarjun, 1,400–2,100m; Shivapuri, 1,700–2,300m; Sundarijal, 1,500–2,000m; Nuwakot Gurjebhanjyang, 1,600–1,900m; Nuwakot Gurjebhanjyang, 1,900–2,000m; Sankhuwasabha District; Kaski District; Dailekh District, Jumla District, Mugu District; Bajura District (Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – AFGHANISTAN, BANGLADESH, CHINA, INDIA, INDONESIA, NEPAL, PAKISTAN (Ghorpadé & Shehzad, 2013; Ghorpadé, 2015b; Hassan et al., 2017; Yang et al., 2020).

Seasonal activity. March to November (Ghorpadé, 2015b; Dyola et al., 2023).

Genus *Eriozona* Schiner, 1860

Eriozona analis Kertész, 1901

Eriozona analis Kertész, 1901:414. Type locality: India.

Distribution in Nepal. NEPAL (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA (Ghorpadé, 2015a, 2015b).

Seasonal activity. June (Ghorpadé, 2015b).

Genus *Eupeodes* Osten Sacken, 1877

Eupeodes bucculatus (Rondani, 1857)

Syrphus bucculatus Rondani, 1857:134. Type locality: Italy.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud at 1,800m; Nagarjun at 1,400m; Shivapuri at 1,700m; Jumla District: Gothichour at 2,800–3,050m, Maharigaon at 2,800–3,200m and Khari La small valley at 3,250m, Humla District: Simikot at 3,050m, Soli Khola at 2,900m, Sankha La at 4,300m, Kuwadi Khola Saipal at 3,600m (Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – AFGHANISTAN, INDIA, ITALY, JAPAN, NEPAL, PAKISTAN (Hassan et al., 2018a; Ghorpadé, 2015b).

Seasonal activity. March to December (Coe, 1964; Dyola et al., 2023).

Eupeodes confrater (Wiedemann, 1830)

Syrphus confrater Wiedemann, 1830:120. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: above Sanghu at 1,890m, Sanghu at 2,134m; South of Kathmandu district, Rapti Tal, Hitora (= Hetuda) District, Soyambhu; Jumla District: Gothichour at 2,800–3,100m and small valley Khari La 3,285m (Coe, 1964; Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – AFGHANISTAN, CHINA, INDONESIA, NEPAL (Evenhuis & Pape, 2024; Yang et al., 2020).

Seasonal activity. March to December (Coe, 1964; Kapoor et al., 1979).

Eupeodes corollae (Fabricius, 1794)

Scaeva corollae Fabricius, 1794:306. Type locality: Germany.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Myagdi District: Sikha Ghodepani at 1,920–2,850m, Mustang District: Muktinath at 3,800m; Dolpa District: Rimi at 2,900–3,100m, Jumla District: Maharigaon at 3,680m, Humla District: Simikot Chumsa Khola at 2,950m (Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021).

Zoogeographical distribution. Cosmopolitan.

Seasonal activity. May to October (Thapa, 2015).

Eupeodes latifasciatus (Macquart, 1829)

Syrphus latifasciatus Macquart, 1829:94. Type locality: France.

Distribution in Nepal. Palaearctic – NEPAL. Mugu District: Rara lakeside at 2,945m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Nearctic, Oriental and Palaearctic – AFGHANISTAN, CANADA, CHINA, INDIA, PAKISTAN, FINLAND, FRANCE, ITALY, IRAN, MONGOLIA, NEPAL, POLAND, SYRIA, SWEDEN (Ghorpadé & Shehzad, 2013; Shehzad et al., 2017; Hassan et al., 2017; Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. June (Thapa, 2015).

Eupeodes nuba (Wiedemann, 1830)

Syrphus nuba Wiedemann, 1830:136. Type locality: Sudan.

Distribution in Nepal. NEPAL (Ghorpadé, 1994, 2014, 2015a).

Zoogeographical distribution. Afrotropical and Palaearctic – AFGHANISTAN, CHINA, EGYPT, INDIA, IRAN, MOROCCO, SUDAN (Ghorpadé, 2015b).

Seasonal activity. June and July (Ghorpadé, 2015a).

Genus *Ischiodon* Sack, 1913

Ischiodon scutellaris (Fabricius, 1805)

Scaeva scutellaris Fabricius, 1805:252. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Dobhan at 1,212m; Jumla District: Gothichour at 2,800m and Hurikot at 2,900–3,100m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Cosmopolitan.

Seasonal activity. January (Coe, 1964).

Genus *Leucozona* Schiner, 1860

Leucozona kingdonwardi Ghorpadé, 1994 *

Leucozona kingdonwardi Ghorpadé, 1994:11. Type locality: Nepal.

Distribution in Nepal. NEPAL (Ghorpadé, 1994, 2014, 2015a).

Zoogeographical distribution. Oriental – CHINA, MYANMAR (Ghorpadé, 1994).

Seasonal activity. May (Ghorpadé, 1994).

Leucozona pruinosa Doczkal, 2002

Leucozona pruinosa Doczkal, 2002:41 Type locality: China (Yunnan).

Distribution in Nepal. Palaearctic – NEPAL. Bajura District, at Simiko (Doczkal, 2002; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, NEPAL (Doczkal, 2002; Yang et al., 2020).

Seasonal activity. July (Ghorpadé, 1994).

Genus *Melangyna* Verrall, 1901

Melangyna remota (Brunetti, 1923)

Syrphus remota Brunetti, 1923:78. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Kirtipur (Kapoor et al., 1979; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental – INDIA, NEPAL (Ghorpadé, 2015a, 2015b; Sengupta et al., 2016).

Seasonal activity. April (Kapoor et al., 1979).

Genus *Melanostoma* Schiner, 1860

Melanostoma orientale (Wiedemann, 1824)

Syrphus orientalis Wiedemann, 1824:36. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Sangu (=Sanghu) at 1,890m, Dobhan at 1,067m (Coe 1964), Sankhuwassabha District: Chichila at 1,600–1,900m; Solukhumbu District: Lukla at 2,800m; Kathmandu District: Gokarna Safari at 1,350m, Manichud, 1,800–2,300m; Nagarjun, 1,400–2,100 m; Shivapuri, 1,700–2,300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m; Lalitpur District: Godawari Botanical Garden at 1,400m, Phulchoki at 2,300–2,500m; Kaski District: Pokhara at 900m; Dolpa District: Rimi Kaigaon at 2,900–3,100m; Humla District: Simikot at 3,100m, Jumla District: Gothichour at 2,800m, Gothigaon at 2,600m, Tatopani at 2,200m, Chala Sankha at 4,400–4,700m; Bajura District: Kuwadi Khola at 2,900m (Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – BHUTAN, CHINA, INDIA, PAKISTAN, SRI LANKA (Ghorpadé & Shehzad, 2013; Shehzad et al., 2017; Sengupta et al., 2019; Yang et al., 2020; Dyola et al., 2023).

Seasonal activity. January to December (Coe, 1964; Lambeck & Kiauta, 1973; Kapoor et al., 1979; Dyola et al., 2023).

Melanostoma scalare (Fabricius, 1794)

Syrphus scalare Fabricius, 1794:308. Type locality: Denmark.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Manichud, 1,800–2,300m; Nagarjun, 1,400–2,100m; Shivapuri, 1,700–2,300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m (Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Afrotropical, Oriental, Nearctic and Palaearctic.

Seasonal activity. March and April (Dyola et al., 2023).

Melanostoma univittatum (Wiedemann, 1824)

Syrphus univittatum Wiedemann, 1824:36. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Arun Valley below Tumlingtar, River Sabhaya at 549m (Coe 1964); Kathmandu District: Manichud, 1,800–2,300m; Nagarjun, 1,400–1,600m; Shivapuri, 1,700m; Shivapuri, 2,300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m, Kirtipur, Lalitpur District: Godawari (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, MALAYSIA, NEPAL (Thangjam et al., 2019; Yang et al., 2020).

Seasonal activity. February to December (Coe, 1964; Kapoor et al., 1979; Dyola et al., 2023).

Genus *Meliscaeva* Frey, 1946

Meliscaeva cinctella (Zetterstedt, 1843)

Syrphus cinctella Zetterstedt, 1843:742. Type locality: Sweden.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Nagarjun at 1,400m, Sundarijal at 1,500m; Taplejung District: Sanghu at 1,890m; Solukhumbu District: Dudhkosi Valley at 3,154m (Coe, 1964; Thapa, 2015).

Zoogeographical distribution. Oriental and Palaearctic – AUSTRIA, CANADA, IRAN, JAPAN, MONGOLIA, NEPAL, SLOVENIA, SRI LANKA, SWEDEN (Yang et al., 2020).

Seasonal activity. July to September (Coe, 1964).

Meliscaeva tribeni (Nayar, 1968)

Baccha tribeni Nayar, 1968:128. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 1994; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA (Ghorpadé, 2015a, 2015b).

Seasonal activity. August to October (Ghorpadé, 1994).

Genus *Paragus* Latreille, 1804

Paragus abrogans Goeldlin de Tiefenau, 1971

Paragus abrogans Goeldlin de Tiefenau, 1971:272. Type locality: Iran.

Distribution in Nepal. NEPAL (Thomson & Ghorpadé, 1992).

Zoogeographical distribution. Palaearctic – GREECE, IRAN, KIRGHIZIA, TURKEY, TURKMENISTAN (Thompson & Ghorpadé, 1992; Sorokina, 2009; Ghorpadé, 2015a; Khosravian et al., 2015; Dousti, 2023).

Seasonal activity. Not available.

Paragus auritus Stuckenberg, 1954

Paragus auritus Stuckenberg, 1954:418. Type locality: Sri Lanka.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Arun Valley, Tumlingtar plateau at 600m.

Zoogeographical distribution. Palaearctic – INDIA, NEPAL, SRI LANKA (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a; Thompson & Ghorpadé, 1992).

Seasonal activity. June (Coe, 1964).

Paragus bicolor (Fabricius, 1794)

Syrphus bicolor Fabricius, 1794:297. Type locality: North Africa.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Kirtipur at 1,400m (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Nearctic and Palaearctic – AFGHANISTAN, CHINA, FRANCE, IRAN, ITALY, NEPAL, PAKISTAN, SWEDEN (Thompson & Ghorpadé, 1992; Ghorpadé, 2014, 2015b; Ghorpadé & Shehzad, 2013; Shehzad et al., 2017; Hassan et al., 2018b; Yang et al., 2020; Dousti, 2023).

Seasonal activity. April (Kapoor et al., 1979).

Paragus crenulatus Thomson, 1869

Paragus crenulatus Thomson, 1869:503. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Arun Valley, Tumlingtar at 600m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, NEPAL, SRI LANKA (Thompson & Ghorpadé, 1992).

Seasonal activity. December to January (Coe, 1964).

Paragus gulangensis Li & Li, 1990

Paragus gulangensis Li & Li, 1990:15. Type locality: China.

Distribution in Nepal. Palaearctic – NEPAL. Humla: Simikot at 3,100m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – CHINA, NEPAL (Sorokina, 2009; Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. June (Claussen & Weipert, 2004).

Paragus haemorrhous Meigen, 1822

Paragus haemorrhous Meigen, 1822:182. Type locality: Austria.

Distribution in Nepal. Palaearctic – NEPAL. Dolpa District: Hurikot at 2,800–3,300m and E Hurikot at 3,100–3,600m; Jumla District: Gothigaon at 2,600m (Thapa, 2015).

Zoogeographical distribution. Afrotropical, Nearctic and Palaearctic – AFRICA, AFGHANISTAN, AUSTRIA, CALIFORNIA, CHINA, COLOMBIA, ENGLAND, INDIA, IRAN, JAPAN, KOREA, NEPAL, PAKISTAN, RUSSIA, SWEDEN (Sorokina, 2009; Khosravian et al., 2015; Ghorpadé, 2015b; Hassan et al., 2018b; Yang et al., 2020; Dousti, 2023).

Seasonal activity. May (Thapa, 2015).

Paragus karnaliensis Claussen & Weipert, 2004 *

Paragus karnaliensis Claussen & Weipert, 2004:78. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung: above Sanghu at 1,900m; Jumla District: Gothigaon at 2,600m, Dolpa District: Hurikot at 3,100–3,600m and Hurikot at 2,800–3,300m (Coe, 1964; Claussen & Weipert, 2004; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May to December (Claussen & Weipert, 2004).

Paragus politus Wiedemann, 1830

Paragus politus Wiedemann, 1830:89. Type locality: China.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: above Sanghu at 1,900m and Dobhan, Maewa River at 1,200m; Kathmandu District (Brunetti, 1907; Claussen & Weipert, 2004; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, PAKISTAN, NEPAL, SRI LANKA (Sorokina & Cheng, 2007; Ghorpadé, 2015b; Shehzad et al., 2017; Hassan et al., 2018b).

Seasonal activity. November and December (Claussen & Weipert, 2004).

Paragus rufocinctus (Brunetti, 1908)

Pipizella rufocincta Brunetti, 1908:53. Type locality: Myanmar.

Distribution in Nepal. Oriental – NEPAL. Bara District: Amlekhgani (= Amlekhgunj) (Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental – CHINA, INDIA, MYANMAR, SRI LANKA (Thompson & Ghorpadé, 1992; Sorokina & Cheng, 2007; Ghorpadé, 2014, 2015b).

Seasonal activity. March (Thompson & Ghorpadé, 1992).

Paragus tibialis (Fallén, 1817)

Pipiza tibialis Fallén, 1817:60. Type locality: Sweden.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Sanghu at 1,890m (Coe, 1964; Ghorpadé, 2015a).

Zoogeographical distribution. Afrotropical, Oriental and Palaearctic – AUSTRIA, CHINA, FRANCE, INDIA, IRAN, JAPAN, KAZAKHSTAN, KIRGHIZIA, MONGOLIA, SWEDEN, RUSSIA, TAJIKISTAN, TURKMENISTAN (Ghorpadé, 2014, 2015b; Sorokina & Cheng, 2007; Sorokina 2009; Yang et al., 2020; Dousti, 2023).

Seasonal activity. November and December (Coe, 1964).

Paragus serratus (Fabricius, 1805)

Mulio serratus Fabricius, 1805:186. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District; Makawanpur District: Chitlang at 1,600m (Brunetti, 1908, 1923; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, PAKISTAN, NEPAL (Shehzad et al., 2017; Hassan et al., 2018b; Sengupta et al., 2019; Yang et al., 2020).

Seasonal activity. November (Ghorpadé, 2015a).

Paragus yerburiensis Stuckenberg, 1954

Paragus yerburiensis Stuckenberg, 1954:415. Type locality: Sri Lanka.

Distribution in Nepal. Palaearctic – NEPAL. Taplejung District: Arun Valley Tumlingtar plateau at 600m (Coe, 1964; Thompson & Ghorpadé, 1992; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, NEPAL, SRI LANKA (Ghorpadé, 2014, 2015a).

Seasonal activity. December (Coe, 1964).

Genus *Parasyrphus* Matsumura, 1917

Parasyrphus aeneostoma (Matsumura, 1917)

Syrphus aeneostoma Matsumura, 1917:39. Type locality: Japan.

Distribution in Nepal. NEPAL (Ghorpadé, 1994, 2014, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, JAPAN (Ghorpadé, 1994).

Seasonal activity. April to June (Ghorpadé, 1994).

Parasyrphus kirghizorum (Peck, 1969)

Syrphus kirghizorum Peck, 1969:201. Type locality: Kyrgyzstan.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Simikot and Sankha La at 4,300m, Kuwadi Khola Saipal at 3,600m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – KYRGYZSTAN, NEPAL (Ghorpadé, 2015b).

Seasonal activity. June and July (Thapa, 2015).

Parasyrphus lineolus (Zetterstedt, 1843)

Scaeva lineola Zetterstedt, 1843:714. Type locality: Sweden.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Chala at 3,500m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – AUSTRIA, CHINA, NEPAL, SWEDEN (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. June (Thapa, 2015).

Parasyrphus makarkini Mutin, 1991 *

Parasyrphus makarkini Mutin, 1990: 143. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Chumsa Khola at 2,950m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Thapa, 2015).

Parasyrphus montanus (Peck, 1972)

Syrphus montanus Matsumura, 1917:39. Type locality: Japan.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,800–3,050m and Maharigaon at 3,220m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – JAPAN, NEPAL (Ghorpadé, 2015a).

Seasonal activity. May to July (Thapa, 2015).

Parasyrphus punctulatus (Verrall, 1873)

Syrphus punctulatus Verrall, 1873:254. Type locality: Denmark.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Churta at 2,900–3,500m (Thapa, 2015; Ghorpadé, 2015a; Budhathoki et al., 2021).

Zoogeographical distribution. Palaearctic – AUSTRIA, CHINA, DENMARK, ENGLAND, JAPAN (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. May (Ghorpadé, 2014; Thapa, 2015).

Parasyrphus sherpa Ghorpadé, 1994 *

Parasyrphus sherpa Ghorpadé, 1994:12. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Dhading District (Ghorpadé, 2014, 2015b).

Zoogeographical distribution. Palaearctic.

Seasonal activity. May (Ghorpadé, 2015a).

Genus *Platycheirus* Lepeletier & Serville, 1828

Platycheirus albimanus (Fabricius, 1781)

Syrphus albimanus Fabricius, 1781:434. Type locality: England.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbbu District: Khumbu and Thangpoche at 4,000m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Nearctic and Palaearctic – ENGLAND, INDIA, ITALY, NEPAL, PAKISTAN, RUSSIA (Ghorpadé & Shehzad, 2013; Hassan et al., 2018a; Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. June (Coe, 1964).

Platycheirus alpigenus Barkalov & Nielsen, 2008

Platycheirus alpigenus Barkalov & Nielsen, 2008:92. Type locality: Russia.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Simikot at 3,500m (Nielsen, 2016).

Zoogeographical distribution. Palaearctic – NEPAL, RUSSIA (Nielsen, 2016).

Seasonal activity. June (Nielsen, 2016).

Platycheirus altotibeticus Nielsen, 2001

Platycheirus altotibeticus Nielsen, 2001:11. Type locality: China.

Distribution in Nepal. Palaearctic – NEPAL. Humla District: Simikot, Kuwadi Khola, Saipal at 3,600m (Ghorpadé, 2015a; Nielsen, 2016).

Zoogeographical distribution. Palaearctic – CHINA, NEPAL (Nielsen, 2001; Yang et al., 2020).

Seasonal activity. July (Nielsen, 2016).

Platycheirus himalayensis Brunetti, 1915

Platychirus manicatus var. *himalayensis* Brunetti, 1915:209. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Kailali District: Churta at 2,900–3,500m Garpung–Tal Hurikot 3,100–3,600m, Hochtal Gothichaur at 2,900m, Chala at 3,500m, Humla District: Simikot, Kuwadi Khola, Saipal at 3,500m, Chala at 3,200–3,500m, Sankha La at 4,300m; Chamliya Khola at 2,800–3,400m (Coe, 1964; Ghorpadé, 2014, 2015a; Nielsen, 2016; Nielsen & Barkalov, 2017).

Zoogeographical distribution. Palaearctic – INDIA, NEPAL (Ghorpadé, 2015b).

Seasonal activity. April to July (Nielsen, 2016).

Platycheirus immaculatus Ôhara, 1980

Platycheirus immaculatus Ôhara, 1980:138. Type locality: Japan.

Distribution in Nepal. Palaearctic – NEPAL. Surroundings of Churta at 2,900–3,500m (Nielsen, 2016).

Zoogeographical distribution. Palaearctic – JAPAN, NEPAL (Ôhara, 1980; Nielsen, 2016).

Seasonal activity. May (Nielsen, 2016).

Platycheirus manicatus (Meigen, 1822)

Syrphus manicatus Meigen, 1822:336. Type locality: Germany.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbbu District (Coe, 1964; Thapa, 2015; Nielsen, 2016).

Zoogeographical distribution. Australian and Palaearctic – AUSTRIA, CHINA, GERMANY, MONGOLIA, NEPAL, NORWAY (Yang et al., 2020).

Seasonal activity. June (Coe, 1964).

Platycheirus urakawensis (Matsumura, 1919)

Melanostoma urakawensis Matsumura [in Matsumura & Adachi, 1919]:132. Type locality: Japan.

Distribution in Nepal. Palaearctic – NEPAL. Solukhumbbu District, Goyom above Sete at 3,100m, below Pangum at 2,500m, above Pangum at 2,900–3,000m; Humla District, Simikot Kuwadi Khola, Saipal at 3,600m, Hochtal Gothichaur at 2,900m, Churta at 3,800m, surroundings of Churta at 2,900–3,500m, Simikot, Tuling bis Kermi at 23,00–2,700m, Maharigaon, high camp at 1,368m and at 2,322m; Chamliya Khola at 2,800–3,400m (Nielsen, 2016).

Zoogeographical distribution. Nearctic and Palaearctic – CANADA, CHINA, INDIA, JAPAN, RUSSIA (Ohara, 1980; Nielsen, 2016).

Seasonal activity. May to July (Nielsen, 2016).

Genus *Scaeva* Fabricius, 1805

Scaeva caucasica Kuznetzov, 1985

Scaeva caucasica Kuznetzov, 1985:402. Type locality: Central Caucasus.

Distribution in Nepal. Palaearctic – NEPAL. Myagdi District: Ghodepani at 2,855m; Dolpa District: Rimi Kaigoan at 2,800–3,100m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic – CHINA, NEPAL (Ghorpadé, 2015b, Mengual et al., 2018; Yang et al., 2020).

Seasonal activity. June (Thapa, 2015).

Scaeva hwangi Ho, 1987

Scaeva hwangi Ho, 1987:194. Type locality: China (Xizang)

Distribution in Nepal. NEPAL (Ghorpadé, 2015a).

Zoogeographical distribution. Palaearctic – CHINA (Yang et al., 2020).

Seasonal activity. May (Ghorpadé, 2015a).

Scaeva latimaculata (Brunetti, 1923)

Lasiopticus latimaculatus Brunetti, 1923:68. Type locality: India.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Kirtipur at 1,400m (Kapoor et al., 1979; Ghorpadé, 2014; Thapa, 2015; Ghorpadé, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, PAKISTAN (Shehzad et al., 2017; Hassan et al., 2018a; Yang et al., 2020).

Seasonal activity. March (Kapoor et al., 1979).

Scaeva pyrastri (Linnaeus, 1758)

Musca pyrastri Linnaeus, 1758:594. Type locality: Sweden.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Sundarijal at 1,800m (Ghorpadé, 1994; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Afrotropical, Nearctic, Oriental and Palaearctic.

Seasonal activity. April (Dyola et al., 2023).

Genus *Sphaerophoria* Lepeletier & Serville, 1828

Sphaerophoria angulata Claussen & Weipert, 2003 *

Sphaerophoria angulata Claussen & Weipert, 2003:359. Type locality: Nepal.

Distribution in Nepal. Palaearctic – NEPAL. Jumla District: Gothichour at 2,900–3,050m, Gothigaon at 2,600m, Maharigaon at 2,800–3,200m and Maharigaon, Dolpa District: Rimi Kaigaon at 2,800–3,100m, Humla District: Simikot 2km south Chala at 3,200m, south-east Chala at 3,100m and 5km South-east Chala at 3,500m; Bajura District: Chachour Khola at 2,900m (Claussen & Weipert, 2003; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Palaearctic.

Seasonal activity. June (Thapa, 2015).

Sphaerophoria assamensis Joseph, 1970

Sphaerophoria assamensis Joseph, 1970:45–168. Type locality: India.

Distribution in Nepal. Palaearctic – NEPAL. Sankhuwasabha District: Uwa at 1,100m Arun valley (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, NEPAL (Ghorpadé, 1994; Yang et al., 2020).

Seasonal activity. December (Thapa, 2015).

Sphaerophoria bengalensis Macquart, 1842

Sphaerophoria bengalensis Macquart, 1842:104. Type locality: Bangladesh.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Tribhuvan at 1,400m, Chhauni at 1,400m, Manichud, 1,800–2,300m; Nagarjun, 2,100m; Shivapuri, 1,700–2,300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600m; Nuwakot, Gurjebhanjyang, 2,000m (Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – BANGLADESH, CHINA, INDIA, NEPAL, PAKISTAN (Vockeroth, 1971; Ghorpadé, 2015a; Hassan et al., 2018a; Yang et al., 2020).

Seasonal activity. September and October (Lambeck & Kiauta, 1973; Dyola et al., 2023).

Sphaerophoria indiana Bigot, 1884

Sphaerophoria indiana Bigot, 1884:99. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud, 1,800–2,000m; Nagarjun, 1,400–2,100m; Shivapuri, 1,700–2,300m; Sundarijal, 1,500–2,000m; Nuwakot, Gurjebhanjyang, 1,600–2,000m; Taplejung District: Sanghu; Sankhuwasbha District: Uwa at 1,600m; Kathmandu District: Kirtipur, Lalitpur District: Godawari Botanical Garden; Dolpa District: Rimi Kaigaon at 2,800–3,100m; Humla District: Simikot at 2,200m (Kapoor et al., 1979; Thapa, 2015; Ghorpadé, 2014, 2015a; Budhathoki et al., 2021; Dyola et al., 2023).

Zoogeographical distribution. Oriental and Palaearctic – INDIA, JAPAN, NEPAL, PAKISTAN (Ghorpadé, 2015a; Shehzad et al., 2017; Hassan et al., 2018a; Yang et al., 2020).

Seasonal activity. March and April (Kapoor et al., 1979; Dyola et al., 2023).

Sphaerophoria macrogaster (Thomson, 1869)

Syrphus macrogaster Thomson, 1869:501. Type locality: Australia.

Distribution in Nepal. Oriental – NEPAL. Kathmandu District: Gokarna Safari at 1,350m (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Australian, Oriental and Palaearctic – AUSTRALIA, CHINA, INDIA, JAPAN, NEPAL, NORTH KOREA, SRI LANKA (Vockeroth, 1971; Ghorpadé, 2015a; Yang et al., 2020).

Seasonal activity. May (Thapa, 2015).

Sphaerophoria scripta (Linnaeus, 1758)

Musca scripta Linnaeus, 1758:594. Type locality: Sweden.

Distribution in Nepal. Oriental and Palaearctic – NEPAL Kathmandu District: Manichud at 2,000m, Nagarjun at 2,100m, Shivapuri at 1,900m, Sundarijal, at 2,000m; Nuwakot District: Gurjebhanjyang at 2,000m; Lalitpur District: Godawari at 1,400m; Jumla District: Tatopani at 2,200m (Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Cosmopolitan.

Seasonal activity. April and May (Thapa, 2015; Dyola et al., 2023).

Sphaerophoria viridaenea Brunetti, 1915

Sphaerophoria viridaenea Brunetti, 1915:216. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Chovar at 1,450m; Jumla District: Gothichour at 2,800–3,100m, Chaurikot at 2,700–3,000m, Talpi at 2,800m and Chala at 3,500m, Humla District: Simikot (Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, NEPAL (Ghorpadé, 2015b; Yang et al., 2020).

Seasonal activity. April to October (Ghorpadé, 1994).

Genus *Syrphus* Fabricius, 1775

Syrphus dalhousiae Ghorpadé, 1994

Syrphus dalhousiae Ghorpade, 1994:14. Type locality: India.

Distribution in Nepal. NEPAL (Ghorpadé, 2015a).

Zoogeographical distribution. Palaearctic – INDIA, PAKISTAN (Ghorpadé, 2015b; Hassan et al., 2018a).

Seasonal activity. October (Ghorpadé, 2015a).

Syrphus fulvifacies Brunetti, 1913

Syrphus fulvifacies Brunetti, 1913:161. Type locality: India.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Taplejung District: Sanghu and above at 2,134m, Sankhuwasabha District: Chichila at 1,600–2,200m; Kathmandu District: Balaju at 1,400m, Rasuwa District: Syabrubesi Barkhu at 1,500–1,700m; Jumla District: Gothichour at 2,900–3,050m, at 2,900–3,100m Maharigaon, at 3,220m and Khari La small at 3,285m, Humla District: Simikot Kuwadi Khola at 2,900m, Mugu District: Rara lakeside at 2,945m; Bajura District: Kuwadi Khola at 2,900m (Coe, 1964; Thapa, 2015; Ghorpadé, 2014, 2015a).

Zoogeographical distribution. Oriental and Palaearctic – CHINA, INDIA, INDONESIA, LAOS, NEPAL, PAKISTAN (Ghorpadé, 2015b; Hassan et al., 2018a; Yang et al., 2020).

Seasonal activity. January to December (Coe, 1964).

Syrphus ribesii (Linnaeus, 1758)

Musca ribesii Linnaeus, 1758:593. Type locality: Sweden.

Distribution in Nepal. NEPAL (Ghorpadé, 1994; Ghorpadé, 2015b).

Zoogeographical distribution. Oriental, Nearctic and Palaearctic – CANADA, CHINA, ENGLAND, FRANCE, INDIA, JAPAN, PENNSYLVANIA, RUSSIA, SLOVENIA, SWEDEN (Ghorpadé, 2014, 2015b; Yang et al., 2020).

Seasonal activity. August to October (Ghorpadé, 1994).

Syrphus torvus Osten Sacken, 1875

Syrphus torvus Osten Sacken, 1875:139. Type locality: USA: New Hampshire, Mount Washington.

Distribution in Nepal. Oriental and Palaearctic – NEPAL. Kathmandu District: Manichud at 2,300m, Nagarjun at 2,100m, Shivapuri at 2,300m, Sundarijal at 2,000m; Taplejung District: Sangu at 1,900m, Solukhumbu District: Tengpoche Gonda at 3,850m; Jumla District: Gothichour at 2,900–3,100m, Maharigaon at 3,680m, Khari La small valley at 3,285m; Mugu District: Rara Lakeside at 2,945m; Bajura District: Kuwadi Khola at 2,900m (Coe, 1964; Lambeck & Kiauta, 1973; Thapa, 2015; Ghorpadé, 2014, 2015a; Dyola et al., 2023).

Zoogeographical distribution. Oriental, Nearctic and Palaearctic – CHINA, INDIA, MONGOLIA, NEPAL, NORTH AMERICA, PAKISTAN, THAILAND (Ghorpadé, 2015b; Hassan et al., 2018a; Yang et al., 2020).

Seasonal activity. March to December (Coe, 1964; Lambeck & Kiauta, 1973; Dyola et al., 2023).

Genus *Vockerothiella* Ghorpadé, 1994

Vockerothiella laticornis (Curran, 1928)

Asarkina laticornis Curran, 1928:235. Type locality: Thailand (Khao Luang).

Distribution in Nepal. NEPAL (Ghorpadé, 1994, 2014, 2015a).

Zoogeographical distribution. Oriental – MALAYSIA, THAILAND (Ghorpadé, 2014, 2015b).

Seasonal activity. July (Ghorpadé, 2015a).

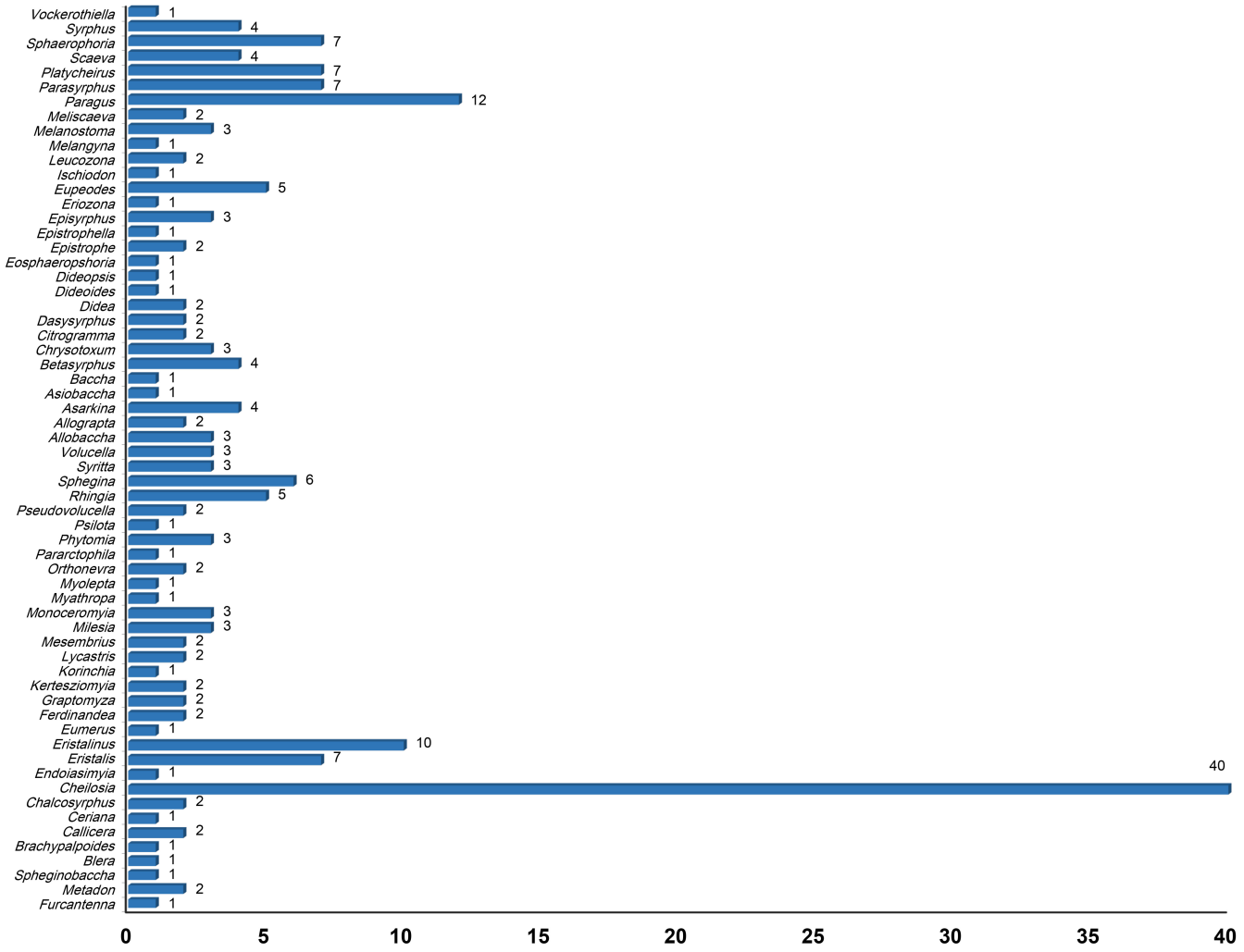

Figure 2. Number of species of various genera of the hoverflies distributed in Nepal.

DISCUSSION

This result of checklist indicates a rich diversity of hoverflies (Syrphidae) in Nepal, with 205 species recorded so far. The dominance of the Eristalinae subfamily (111 species) suggests a particular habitat preference for these hoverflies like in most cases this group preferred white flowers (Klecka et al., 2018). The distribution of species from the Palaearctic (94 total species, 40 endemic species) and Oriental realms (38 total species, 7 endemic species) suggests Nepal as a transitional zone, facilitating the species from both realms (Fig. 3). The higher species from the Palaearctic realm compared to the Oriental realm suggests potential environmental factors of the Palaearctic as this is the largest realm and best known to overall insect diversity (Konstantinov et al., 2009). Similarly, the disproportionately lower number of endemic species within the Oriental realm signifies the unique ecological niches that are suitable for endemic hoverflies in this biogeographic realm. Studies have contributed to the understanding of the confined ecological niches inhabited like forested hills or mountains by endemic species (Djellab et al., 2013; Vujić et al., 2022). Despite the greater diversity of species from the Oriental and Palaearctic regions in the country, it is notable that at least eight cosmopolitan or widespread species are known to occur in Nepal. Furthermore, despite the challenges posed by climate change, these hoverfly species seem to be adapting well to their changing habitats compared to other species (Miličić et al., 2018)

.

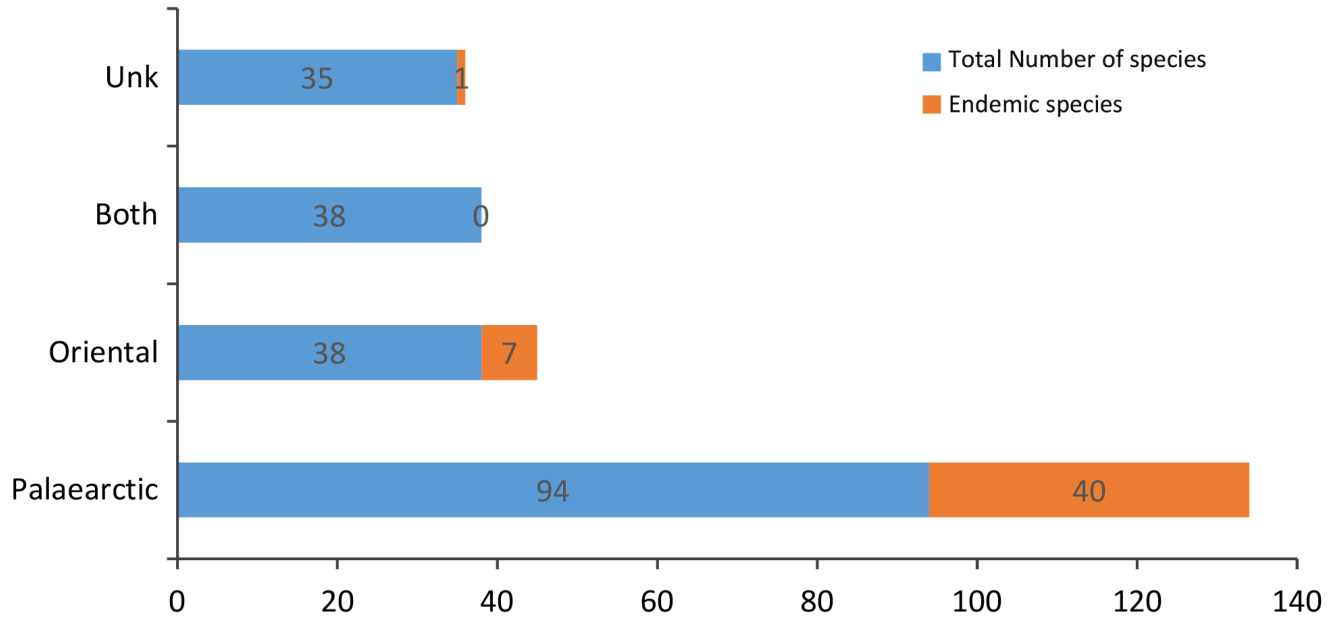

Figure 3. Distribution of species of the hoverflies and endemic species within different regions of Nepal.

Additionally, presence of 38 hoverfly species common to the Oriental and Palaearctic realms could be possibly due to the country's unique biogeographic position that shares habitats of both realms hence potentially serving corridors for the migratory flies. Hoverflies belonging to *Melanostoma* spp. share both these realm (Mengual et al., 2020). Moreover, the presence of species with unknown localities (35 total species, one being endemic) indicates gaps in our current understanding of hoverfly distribution in the Nepal suggesting the need for further research. The data on hoverflies in Nepal also show the complex distribution patterns in different biogeographic realms. The presence of hoverflies in multiple biogeographic regions such as Oriental, Palaearctic, Nearctic, Afrotropical, and Australian Regions suggests that these insects have adapted to diverse environmental conditions and habitats across continents (Fig. 4).

The distribution of hoverfly species across provinces within the country exhibits spatial heterogeneity (Fig. 1; Appendix 1), reflecting gap in research. Bagmati and Koshi Provinces are the most explored region while Madhesh and Lumbini are the least explored areas. Hence, the distribution of hoverflies in provinces like Bagmati and Koshi show much diversity, possibly due to developed and accessible nature of these provinces. In contrast, provinces like Madhesh and Lumbini exhibit lower records, indicating potential gaps in surveying efforts and environmental accessibility. The development in Bagmati and Khosi regions may translate to more stable and varied habitats, including diverse vegetation, and land use practices, which can support a greater abundance and variety of hoverfly species. Additionally, accessibility facilitates scientific research and documentation efforts, enabling experts to explore and record the hoverfly diversity more comprehensively. Moreover, this variation in distribution data of hoverflies could also direct for opportunistic collection because literature show foreign experts in the trekking routes only have explored some parts of the country. The month of May shows the peak month closely followed by July and June when commonest hoverflies found (Wotton et al., 2019). These findings align with the flowering season, indicating a potential correlation between hoverfly abundance and floral resources. This comprehensive checklist shows notable gaps in distribution data, particularly during the winter season. However, based on the literature, Khosi Province (Taplejung and Sankhuwasabha) emerges as the foremost suitable area for winter observations of hoverflies. Incomplete records in certain sites shows the ongoing challenges in surveying and recording hoverfly diversity.

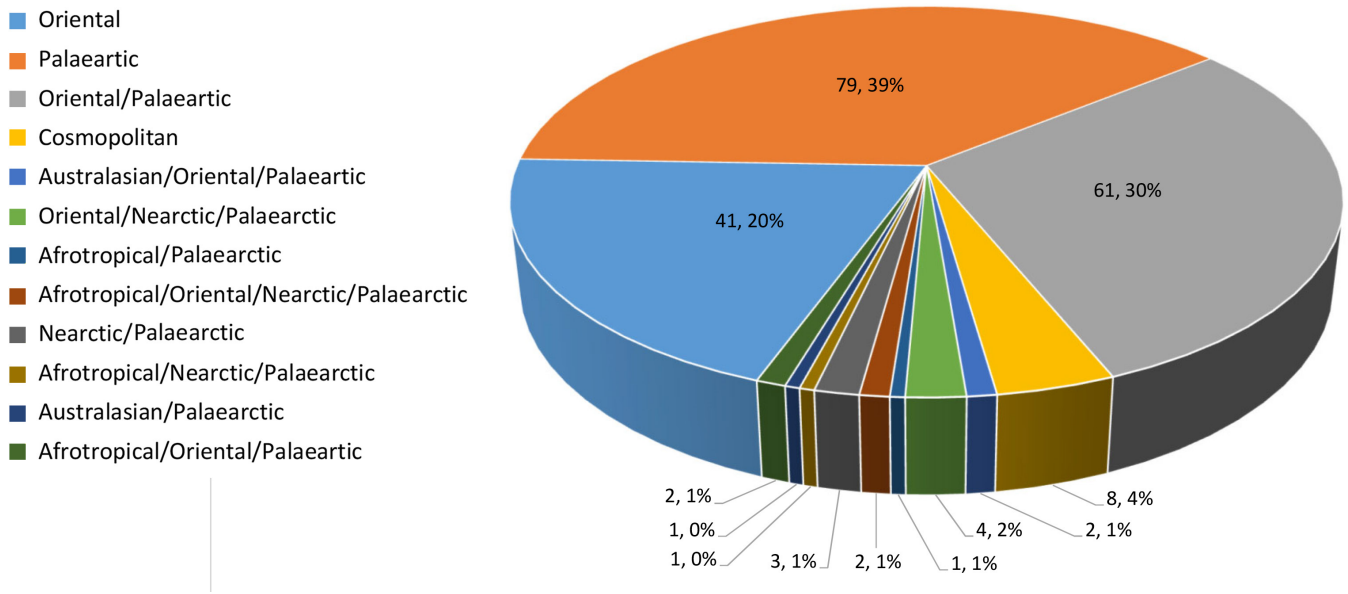

Figure 4. Zoogeographical distribution of species of hoverflies known from Nepal.

The diversity of hoverflies in Nepal, estimated around 205 species, is nearly double that found in Pakistan, which hosts approximately 100 species (Hassan et al., 2022)). However, it constitutes more than half of total number of Indian hoverfly species (357 species: Ghorpadé 2015b), and less than one-quarter of the hoverfly species in China (957 species: Yang et al., 2020). Within the subfamilies of the family Syrphidae in Nepal, the subfamily Microdontinae comprises four species, Syrphinae with 149 species, and Eristalinae with 111 species. Microdontinae shares three species with India, two with China, and one only known to occur in Nepal. In contrast, the subfamily Syrphinae, with 149 species in Nepal, shares 53 species with India, 28 with China, 25 species with Pakistan, and 85 species known only to occur in Nepal. Similarly, within the subfamily Eristalinae with 111 species in Nepal, shares 35 species with India, 23 with China, 17 species with Pakistan, and 54 species known only to occur in Nepal. Further research effort should focus on filling these gaps, providing an understanding of hoverfly ecology and focusing on conservation strategies.

AUTHOR'S CONTRIBUTION

The authors confirm their contribution to the paper as follows: U.D.: Compiling data, Writing the manuscript, correspondence, and revising manuscript; A.P.: Compiling the literature, checking validity of the records; T.S.: Checking the validity of the recorded data; P.S.: Finding literature and checking the validity of the records; M.A.H.: Supervising the work, confirmation of taxonomic part, revising the manuscript and correspondence. All authors read and approved the final version of the manuscript.

FUNDING

This research received no specific grant from any funding agencies.

AVAILABILITY OF DATA AND MATERIAL

Not applicable.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study only included plants and arthropod material, and all required ethical guidelines for the treatment and use of animals were strictly adhered to in accordance with international, national, and institutional regulations. No human participants were involved in any studies conducted by the authors for this article.

CONSENT FOR PUBLICATION

Not applicable.

CONFLICT OF INTERESTS

The authors declare that there is no conflict of interest regarding the publication of this paper.

ACKNOWLEDGMENTS

We would like to extend our sincere gratitude to Prof. Dr. Kumar Sapkota, Head of the Central Department of Zoology, Tribhuvan University, for his invaluable moral support throughout this work. Additionally, we express our appreciation to Assoc. Prof. Dr. Ishan Gautam of the Natural History Museum for generously providing relevant articles that contributed to the completion of this study.

REFERENCES

Barkalov, A.V. & Cheng, X.Y. (1998) New species and new records of hover-flies of the genus *Cheilosia* Mg. from China (Diptera, Syrphidae). *Zoosystematica Rossica*, 7, 313–321.

Barkalov, A.V. & Cheng X.Y. (2004) Revision of the genus *Cheilosia* Meigen, 1822 (Diptera: Syrphidae) of China. *Contributions on Entomology International*, 5, 267–416.

Barkalov, A.V. & Ståhls, G. (2022) *Cheilosia* (Diptera, Syrphidae: Rhingiini) of Nepal with descriptions of 29 new species. *European Journal of Taxonomy*, 829, 1–127. https://doi.org/10.5852/ejt.2022.829.1863

Bhatia, H.L. & Shaffi, M. (1933) Life histories of some Indian Syrphidae. *Indian Journal of Agricultural Science*, 2, 543–570.

Brunetti, E. (1907) Notes on the Oriental Syrphidae. *Records of the Zoological Survey of India*, 1 (4), 0379–0380. https://doi.org/10.26515/rzsi/v1/i4/1907/163412

Brunetti, E. (1908) Notes on Oriental Syrphidae with Descriptions of new Species I. *Records of the Zoological Survey of India*, 2 (1), 49–96. https://doi.org/10.26515/rzsi/v2/i1/1908/163308

Brunetti, E. (1913) Zoological results of the Arbor Expedition, 1911–12. XI. Diptera. *Records of the Indian Museum* 8, 149–190. https://doi.org/10.26515/rzsi/v8/i2/1913/163167

Brunetti, E. (1923) Pipunculidae, Syrphidae, Conopidae, Oestridae. Diptera. Vol. 3. In: Shipley, A.E. (ed) *The Fauna of British India, including Ceylon and Burma*. Taylor & Francis, London. pp. 1–424

Budhathoki, N., Dhakal, S. & Dyola, U. (2021) Diversity of hoverflies (Diptera: Syrphidae) in Nagarjun, Shivapuri Nagarjun National Park, Nepal. *Biodiversitas*, 22, 5382–5388. https://doi.org/10.13057/biodiv/d221220

Claussen, C.J. & Weipert, J. (2003) Zur Schwebfliegenfauna Nepals (Insecta: Diptera: Syrphidae) unter besonderer Berücksichtigung Westnepals. *Biodiversität und Naturausstattung im Himalaya. Verein der Freunde und Förderer des Naturkundemuseums Erfurt ev, Erfurt*, 343–380.

Claussen, C. & Weipert, J. (2004) Notes on the subgenus *Paragus* (*Pandasyopthalmus*) (Diptera, Syrphidae) from Nepal, with the description of a new species. *Volucella*, 7, 75–88.

Coe, R.L. (1964) Diptera from Nepal. *Bulletin of the British Museum of Natural History, Entomology*, 15, 255–290. https://doi.org/10.5962/bhl.part.20541

Dawah, H.A. Abdullah, M.A., Ahmad, S.K., Al-Dhafer, H. & Turner, J. (2020) An overview of the Syrphidae (Diptera) of Saudi Arabia. *Zootaxa*, 4855 (1), 1–69. https://doi.org/10.11646/zootaxa.4855.1.1

Djellab, S., van Eck, A. & Samraoui, B. (2013) A survey of the hoverflies of northeastern Algeria (Diptera: Syrphidae). *Egyptian Journal of Biology*, 15, 1–12. https://doi.org/10.4314/ejb.v15i1.1

Doczkal, D. (2002) Description of *Leucozona pruinosa* spec. nov. (Diptera, Syrphidae) from the Himalayas. *Volucella*, 6, 41–43.

Dousti, A.F. (2023) An updated checklist of Syrphidae (Diptera, Brachycera) from Iran. *Journal of Insect Biodiversity and Systematics*, 9 (2), 207–264. https://doi.org/10.52547/jibs.9.2.207

Doyle, T. Hawkes W.L.S., Massy, R., Powney, G.D., Menz, M.H.M. & Wotton, K.R. (2020) Pollination by hoverfies in the Anthropocene. *Proceedings of the Royal Society B, Biological Sciences*, 27 (287), 20200508. https://doi.org/10.1098/rspb.2020.0508

Dyola, U., Baniya, C.B., Acharya, P.R., Subedi, P., Pandey, A. & Sapkota, K. (2022) Community structure of pollinating insects and its driving factors in different habitats of Shivapuri-Nagarjun National Park, Nepal. *Ecology and Evolution*, 12 (3), e8653. https://doi.org/10.1002/ece3.8653

Dyola, U., Baniya, C.B., Acharya, P.R., Hassan, M.A., Pandey, A. & Sapkota, K. (2023) A faunistic study on the hoverflies (Diptera: Syrphidae) of Shivapuri-Nagarjun National Park, Central Nepal. *Oriental Insects*, 57 (4), 1004–1040. https://doi.org/10.1080/00305316.2023.2171497

Evenhuis, N.L. & Pape, T. (eds) (2024) Systema Dipterorum, Version: 5.1. Available from http://diptera.org/ [Accessed 7 March 2024]

Ghorpadé, K. (1994) Diagnostic keys to new and known genera and species of Indian subcontinent Syrphini (Diptera: Syrphidae). *Colemania: Insect Biosystematics*, 3, 1–15.

Ghorpadé, K. (2014) An updated check-list of the Hover-flies (Diptera-Syrphidae) recorded in the Indian subcontinent. *Colemania*, 44, 1–30.

Ghorpadé, K. (2015a) A summary, updated account of the Hoverflies (Diptera—Syrphidae) of the Nepal Himalaya. *Colemania,* 49, 1–11.

Ghorpadé, K. (2015b) Hover–flies (Diptera–Syrphidae) documented from the Northwest Frontier of the Indian sub–continent: a circumstantial history and inclusive bibliography. *Colemania*, 50, 1–151.

Ghorpadé, K. & Shehzad, A. (2013) An annotated checklist and select bibliography of the hover-flies (Diptera-Syrphidae) of Pakistan, Indian subcontinent. *Colemania*, 37, 1–26.

Ghorpadé, K., Prasad, K.D. & Pavan, S. (2011) Hover-flies (Diptera: Syrphidae) of the Coromandel Coast in Andhra Carnatic, Peninsular India. *Bionotes* (Aligarh), 13 (2), 78–86.

Hassan, M.A., Mahmood, K., Nazir, K., Fatima, N. & Aslam, M.A. (2017) Faunistic work on the Hover flies (Diptera: Syrphidae) of district Narowal, Pakistan. *Journal of Entomology and Zoology Studies*, 5, 626–630.

Hassan, M.A., Ghorpadé, K., Mahmood, K., Shehzad, A., Nazir, N. & Fatima, N. (2018a) Preliminary studies on the Syrphidae (Diptera) of Poonch district, Azad Kashmir, Pakistan. *Oriental Insects*, 52 (2), 190–209. https://doi.org/10.1080/00305316.2017.1394924

Hassan, M.A., Ghorpadé, K., Bodlah, I., Mahmood, K. & Iqbal, Z. (2018b) Additional notes on the genus *Paragus* Latreille (Diptera: Syrphidae) from Pakistan with a new country record. *The Journal of Animal and Plant Sciences*, 28(3), 708–714.

Hassan, M.A., Bodlah, I., Aihetasham, A., Bodlah, M. A. & Hussain, K. (2019a) First Record of *Baccha maculata* Walker, 1852 (Diptera: Syrphidae) from the Pothwar Punjab, Pakistan. *Punjab University Journal of Zoology*, 34 (2), 133–135.

Hassan, M.A., Bodlah, I., Bodlah, M.A. & Hussain, R. (2019b) New records of the genus *Ceriana* Rafinesque, 1815 (Diptera: Syrphidae) from Pakistan. *Munis Entomology and Zoology Journal*, 14 (1), 185–187.

Hassan, M.A., Bodlah, I., Ahmad, M., Kayani, A.R. & Mahmood, K. (2020) First record of the genus *Graptomyza* Wiedemann, 1830 (Diptera: Syrphidae) from Pakistan. *The Journal of Animal and Plant Sciences*, 30 (2), 512–516. https://doi.org/10.36899/JAPS.2020.2.0059

Hassan, M.A., Bodlah, I., Shehzad, A., Fatima, N. & Fazal, S. (2021) First record of the genus *Myolepta* Newman, 1838 (Diptera: Syrphidae) for Pakistan, with description of a new species. *Oriental Insects*, 55 (4), 564–573. https://doi.org/10.1080/00305316.2020.1848656

Hassan, M.A, Shehzad A., Dyola, U., Qasim, M., Fatima, N. & Maryam, Z. (2022) Two new records of the hoverfly genus *Eumerus* Meigen (Diptera: Syrphidae) for Pakistan. *Papéis Avulsos de Zoologia*, 62, e202262067. https://doi.org/10.11606/1807-0205/2022.62.067

Hippa, H. (1978) Classification of Xylotini (Diptera, Syrphidae). *Acta Zoologica Fennica*, 156, 1–153.

Kapoor, V.C., Malla, Y.K. & Rajbhandari, Y. (1979) Syrphid flies (Diptera: Syrphidae) from Kathmandu Valley, Nepal with a check list of syrphids of Nepal. *Journal of Natural History Museum*, Kathmandu, 3, 51–68.

Khosravian, Z., Sadeghi, H. & Ssymank, A. (2015) Hoverflies (Diptera: Syrphidae) of Kerman province, Iran. *Far Eastern Entomologist*, 290, 1–12.

Klecka, J., Hadrava, J., Biella, P. & Akter, A. (2018) Flower visitation by hoverflies (Diptera: Syrphidae) in a temperate plant-pollinator network. *PeerJ*, 6, e6025. https://doi.org/10.7717/peerj.6025

Knutson, L.V., Thompson, F.C., Vockeroth, J.R. (1975) Family Syrphidae. In: Delfinado, M.D. & Hardy, D.E. (eds) *A Catalog of the Diptera of the Oriental Region. Vol. II. Suborder Brachycera through division Aschiza, suborder Cyclorrhapha*. University of Hawaii Press, Honolulu, pp. 307–374.

Konstantinov, A.S., Korotyaev, B.A. & Volkovitsh, M.G. (2009) Insect biodiversity in the Palaearctic Region. In: Foottit, R.G. & Adler, P.H. (eds) *Insect Biodiversity: Science and Society*. Blackwell Publishing Ltd, Oxford, UK, pp. 107–162. https://doi.org/10.1002/9781444308211.ch7

Lambeck, H.J.P. & Kiauta, B. (1973) On a small collection of syrphid flies (Diptera: Syrphidae) from the Kathmandu Valley and the Khumbu Himal region (Nepal). *Entomologische Berichten*, 33, 72–78.

Mengual, X. & Ghorpadé, K. (2010) The flower fly genus *Eosphaerophoria* Frey (Diptera, Syrphidae). ZooKeys, 33, 39–80. https://doi.org/10.3897/zookeys.33.298

Mengual, X., Ståhls, G. & Rojo, S. (2015) Phylogenetic relationships and taxonomic ranking of pipizine flower flies (Diptera: Syrphidae) with implications for the evolution of aphidophagy. *Cladistics*, 31 (5), 491–508. https://doi.org/10.1111/cla.12105

Mengual, X., Bot, S., Chkhartishvili, T., Reimann, A., Thormann, J. & von der Mark, L. (2020) Checklist of hover flies (Diptera, Syrphidae) of the Republic of Georgia. *ZooKeys*, 916, 1–123. https://doi.org/10.3897/zookeys.916.47824

Mengual, X., Mayer, C., Burt, T.O., Moran, K.M., Dietz, L., Nottebrock, G., Pauli, T., Young, A.D., Brasseur, M.V., Kukowka, S. & Skevington, J.H. (2023) Systematics and evolution of predatory flower flies (Diptera: Syrphidae) based on exon-capture sequencing. *Systematic Entomology*, 48 (2), 250–277. https://doi.org/10.1111/syen.12573

Miličić, M.S., Janković, M.A., Milić, D.M., Radenković, S.R. & Vujić, A.A. (2018) Strictly protected species of hoverflies (Diptera: Syrphidae) in Serbia in the face of climate change. *Zbornik Matice Srpske Za Prirodne Nauke*, 135, 53-62. https://doi.org/10.2298/ZMSPN1835053M

Nielsen, T.R. (2001) New and little known hoverflies (Diptera, Syrphidae) from Tibet. *Dipteron*, 4, 11–16.

Nielsen, T.R. (2016) Records and notes on some Oriental Platycheirus species and description of the female *P. himalayensis* Brunetti, 1915 (Diptera, Syrphidae). *Norwegian Journal of Entomology*, 63, 169–174.

Nielsen, T.R. & Barkalov, A.V. (2017) A revision of and key to the Holarctic and Oriental *Platycheirus manicatus* group species (Diptera, Syrphidae). *Norwegian Journal of Entomology*, 64, 28–52.

Ôhara, K. (1980) The genus *Platycheirus* Lepeletier and Serville, 1828 (Diptera, Syrphidae) of Japan, with descriptions of three new species. *Esakia*, 15, 97–142. https://doi.org/10.5109/2405

Pape, T., Blagoderov, V. & Mostovski, M.B. (2011) Order Diptera Linnaeus, 1758. In: Zhang, Z.Q. (ed.) Animal biodiversity: An outline of higher–level classification and survey of taxonomic richness. *Zootaxa*, 3148, 222–229. https://doi.org/10.11646/zootaxa.3148.1.9

Reemer, M. (2012) Natural history of Microdontinae (Diptera: Syrphidae): a review. *Unravelling a hotchpotch: phylogeny and classification of the Microdontinae (Diptera: Syrphidae)*. PhD dissertation, Universiteit Leiden, Leiden, 384 p.

Reemer, M. (2016) Syrphidae (Diptera) of Surinam: Eristalinae and synthesis. *Tijdschrift voor Entomologie*, 159 (2), 97–142. https://doi.org/10.1163/22119434-15902002

Reemer, M. & Hippa, H. (2008) Review of the species of *Pseudovolucella* Shiraki, 1930 (Diptera: Syrphidae). *Tijdschrift voor Entomologie*, 151 (1), 77–93. https://doi.org/10.1163/22119434-900000253

Reemer, M. & Ståhls, G. (2013) Generic revision and species classification of the Microdontinae (Diptera, Syrphidae). *ZooKeys*, 288, 1–213. https://doi.org/10.3897/zookeys.288.4095

Rojo, S., Gilbert, F., Marcos–García, M. A., Nieto, J. M. & Mier, M. P. (2003) *A World Review of Predatory Hoverflies (Diptera, Syrphidae: Syrphinae) and their Prey*. CIBIO Ediciones, Alicante. 319 p.

Sankararaman, H., Daniel, J.A., Manickavasagam, S. & Pennards, G. (2020) First record of two interesting genera of hover flies (Diptera: Syrphidae) in South India. *Journal of Insect Biodiversity*, 14 (2), 54–63. https://doi.org/10.12976/jib/2020.14.2.4

Sankararaman, H., Anooj, S.S. & Mengual, X. (2022) Review of Indian species of *Monoceromyia* Shannon (Diptera: Syrphidae) with description of two new species. *Journal of Asia-Pacific Entomology*, 25 (1), 101820. https://doi.org/10.1016/j.aspen.2021.09.011

Satyal, P. (2004) Forestry Sector in Nepal: A Country Profile Report. Forests Monitor, Cambridge, UK. 43 p.

Sengupta, J., Naskar, A., Maity, A., Hazra, S., Mukhopadhyay, E., Ghosh, S. & Banerjee, D. (2016) An Updated Distributional Account of Indian Hover flies (Insecta: Diptera: Syrphidae). *Journal of Entomology and Zoology Studies*, 4 (6), 381–396.

Sengupta, J., Naskar, A., Maity, A., Hazra, S., Sarkar, N.K. & Banerjee, D. (2017) Hover Flies (Diptera: Syrphidae) from Darjeeling Himalaya—A Part of Indo–Burmese Hotspot. *Indian Journal of Entomology*, 79 (3), 336–353. https://doi.org/10.5958/0974-8172.2017.00065.7

Sengupta, J., Naskar, A., Maity, A. & Banerjee, D. (2018) A taxonomic account of hover flies (Insecta: Diptera: Syrphidae) with 4 new records from cold dry zones of Himachal Pradesh, India. *International Journal of Advancement in Life Sciences Research*, 1 (4), 13–30. https://doi.org/10.31632/ijalsr.2018v01i04.003

Sengupta, J., Naskar, A., Homechaudhuri, S. & Banerjee, D. (2019) Diversity of hover flies (Insecta: Diptera: Syrphidae) with 3 new record from high Hill Zone of Himachal Pradesh, India. *International Journal of Advancement in Life Sciences Research*, 2 (4), 21–37. https://doi.org/10.31632/ijalsr.2019v02i04.004

Sengupta, J., Naskar, A., Parui, P., Homechaudhuri, S. & Banerjee, D. (2020) A new record from the genus *Callicera* Panzer, 1809 (Insecta: Diptera: Syrphidae) from India. *Munis Entomology & Zoology*, 15 (1), 140–144.

Shehzad, A., Ghorpadé, K., Rafi, M.A., Zia, A., Bhatti, A.R., Ilyas, M. & Shah, S.W. (2017) Faunistic study of hover flies (Diptera: Syrphidae) of Pakistan. *Oriental Insects*, 51 (3), 197–220. https://doi.org/10.1080/00305316.2016.1274275

Shrestha, P.K. & Aryal, R.P. (2000) Diversity of dipteron fauna in Dhapakel, Lalipur District, Central Nepal. *Journal of Natural History Museum*, Kathmandu, 19, 41–56.

Skevington, J.H., Locke, M.M., Young, A.D., Moran, K., Crins, W.J. & Marshall, S.A. (2019) *Field Guide To The Flower Flies of Northeastern North America*. Princeton University Press, Princeton. 512 p. https://doi.org/10.2307/j.ctv7xbrvz

Sorokina, V.S. (2009) Hover flies of the genus *Paragus* Latr. (Diptera, Syrphidae) of Russia and adjacent countries. *Entomological Review*, 89, 351–366. https://doi.org/10.1134/S0013873809030130

Sorokina, V.S. & Cheng, X.Y. (2007) New species and new distributional records of the genus *Paragus* Latr. (Diptera, Syrphidae) from China. *Volucella*, 8, 1–33.

Vujić, A., Gilbert, F., Flinn, G., Englefield, E., Ferreira, C.C., Varga, Z., Eggert, F., Woolcock, S., Böhm, M., Mergy, R., et al. (2022) *Pollinators on the Edge: our European hoverflies.* The European Red List of Hoverflies. European Commission, Brussels, Belgium. 108 p.

Thapa, V.K. (2015) *Insect diversity in Nepal*. VK Thapa Publication, Kathmandu, Nepal, 1097 p.

Thangjam, R., Kadam, V., Ningthoujam, K. & Sorokhaibam, M. (2019) Hoverflies of Assam (Diptera: Syrphidae): new records and their diversity. *Journal of Entomology and Zoology Studies*, 7 (4), 965–969.

Thompson, F.C. (1966) A new *Sphegina* from Nepal (Diptera: Syrphidae). *Bulletin of the Brooklyn Entomological Society*, 42–45.

Thompson, F.C. (1974) The genus *Spheginobaccha* de Meijere (Diptera: Syrphidae). *Transactions of the American Entomological Society*, 100 (3), 255–287.

Thompson, F.C. (2012) Fabulous flower flies for famous fly fanatics (Diptera: Syrphidae). A tribute to the dipterists of the Canadian National Collection. *The Canadian Entomologist*, 144 (1), 1–16. https://doi.org/10.4039/tce.2012.4

Thompson, F.C. (2019) Syrphidae. Systema Dipterorum, Version: 5.1. Available from: http://sd.zoobank.org/Nomenclators [Accessed 7 March 2024]

Thompson, F.C. & Ghorpadé, K. (1992) A new coffee aphid predator, with notes on other Oriental species of *Paragus* (Diptera: Syrphidae). *Colemania*, 5, 1–24.

Thompson, F.C. & Vockeroth, J.R. (1989) Family Syrphidae. In: Evenhuis, N.L. (ed.) *Catalog of the Diptera of the Australasian and Oceanian Regions.* E.J. Brill, Leiden and Bishop Museum Press, Honolulu, pp. 437–458.

van Steenis, J. & Hippa, H. (2012) Revision and phylogeny of the Oriental hoverfly genus *Korinchia* Edwards (Diptera: Syrphidae). *Tijdschrift voor Entomologie*, 155 (2–3), 209–268. https://doi.org/10.1163/22119434-00002014

van Steenis, J., Hippa, H. & Mutin, V.A. (2018) Revision of the Oriental species of the genus *Sphegina* Meigen, 1822 (Diptera: Syrphidae). *European Journal of Taxonomy*, 489, 1–198. https://doi.org/10.5852/ejt.2018.489

van Steenis, J., Wu, B., Ssymank, A.M., van Steenis, W., Skevington, J.H., Young, A.D., Palmer, C.J., van Zuijen, M.P., Lechner-Ssymank, B. & Shiao, S.F. (2021) Preliminary results of the 2016 international Taiwan expedition on Syrphidae (Diptera). *Formosan Entomologist*, 41 (2), 78–134.

Vockeroth, J.R. (1971) The identity of some holarctic and Old World species of *Sphaerophoria* (Diptera: Syrphidae). *The Canadian Entomologist*, 103 (11), 1627–1635. https://doi.org/10.4039/Ent1031627-11

Wiegmann, B.M. (1986) A new species of *Myolepta* (Diptera: Syrphidae) from Nepal, with its phylogenetic placement and a key to oriental species. *Journal of the New York Entomological Society*, 94 (3), 377–382.

Weipert, J. & Claussen, C. (2006) A new species of the genus *Orthonevra* Macquart, 1829 (Diptera, Syrphidae) from Nepal, with notes on the placement of two Oriental species. *Studia Dipterologica*, 12, 319–330.

Wotton, K. R., Gao, B., Menz, M. H., Morris, R. K., Ball, S. G., Lim, K. S., Reynolds, D.R., Hu, G. & Chapman, J.W., (2019) Mass seasonal migrations of hoverflies provide extensive pollination and crop protection services. *Current Biology*, 29 (13), 2167–2173. https://doi.org/10.1016/j.cub.2019.05.036

Yang, D., Wang, M.Q. & Li, W.L. (2020) *Species catalog of China. Vol. 2. Animals, Insecta (VII), Diptera (3), Brachycera Cyclorrhaphous*. Science Press, Beijing. 1312 p.

Appendix 1. Regional distribution of Syrphidae in Nepal. Abbreviations: 1 = Koshi, 2 = Madhesh, 3 = Bagmati, 4 = Lumbini, 5 = Gandaki, 6 = Karnali, 7 = Sudurpashchim, 8 = Unknown locality, 9 = Endemic species.

	Subfamilies	Genera	Species	1	2	3	4	5	6	7	8	9
1	**Microdontinae**	*Furcantenna*	*Furcantenna nepalensis*			●						●
2		*Metadon*	*Metadon annandalei*		●	●						
3			*Metadon bellus*	●								
4		*Spheginobaccha*	*Spheginobaccha chillcotti*			●						
5	**Eristalinae**	*Blera*	*Blera chillcotti*			●						●
6		*Brachypalpoides*	*Brachypalpoides makiana*								●	
7		*Callicera*	*Callicera nitens*	●								
8			*Callicera sanguensis*	●								
9		*Ceriana*	*Ceriana ornatifrons*			●						
10		*Chalcosyrphus*	*Chalcosyrphus dimidiatus*			●						
11			*Chalcosyrphus nepalensis*									●
12		*Cheilosia*	*Cheilosia albipicta*	●				●				●
13			*Cheilosia alpha*			●						●
14			*Cheilosia angusta*						●			●
15			*Cheilosia brevimontana*	●								●
16			*Cheilosia collis*	●								●
17			*Cheilosia crassata*	●								●
18			*Cheilosia difficilis*	●		●						
19			*Cheilosia distincta*	●		●			●			
20			*Cheilosia egregia*	●								
21			*Cheilosia erratica*	●		●		●	●	●		
22			*Cheilosia falcata*	●								●
23			*Cheilosia flavigena*	●								●
24			*Cheilosia gilva*	●								●
25			*Cheilosia longula*								●	
26			*Cheilosia hauseri*	●								●
27			*Cheilosia himalayensis*	●								
28			*Cheilosia illustratoides*						●			●
29			*Cheilosia indiana*	●		●						
30			*Cheilosia indistincta*							●		●
31			*Cheilosia insolita*			●						●
32			*Cheilosia leucozonoides*	●		●						●
33			*Cheilosia lucida*	●		●						
34			*Cheilosia maculata*	●		●						
35			*Cheilosia minuscula*	●								●
36			*Cheilosia nepalensis*			●						●
37			*Cheilosia nigella*						●			●
38			*Cheilosia nigroaenea*	●								
39			*Cheilosia pernigra*	●								●
40			*Cheilosia pica*	●		●						
41			*Cheilosia picta*			●			●			●
42			*Cheilosia pilivena*	●		●			●			●
43			*Cheilosia procera*						●			●
44			*Cheilosia quinta*						●			
45			*Cheilosia rava*							●		●
46			*Cheilosia spinosa*						●			●
47			*Cheilosia spuria*	●								●
48			*Cheilosia suspecta*			●		●				
49			*Cheilosia vellea*						●			●
50			*Cheilosia versa*			●						●
51			*Cheilosia weiperti*		●							●
52		*Endoiasimyia*	*Endoiasimyia indiana*								●	
53		*Eristalis*	*Eristalis brevifacies*	●				●				
54			*Eristalis cerealis*	●		●		●	●			
55			*Eristalis himalayensis*	●		●		●	●			
56			*Eristalis intricarioides*						●			
57			*Eristalis simplicipes*	●								
58			*Eristalis tibeticus*								●	
59			*Eristalis tenax*	●		●		●	●			
60		*Eristalinus*	*Eristalinus aeneus*			●						
61			*Eristalinus arvorum*	●		●			●			
62			*Eristalinus megacephalus*	●		●						
63			*Eristalinus obliquus*								●	
64			*Eristalinus paria*	●		●			●			
65			*Eristalinus quadristriatus*	●		●						
66			*Eristalinus quinquestriatus*			●						
67			*Eristalinus taeniops*			●						
68			*Eristalinus tarsalis*	●								
69			*Eristalinus multifarius*	●		●						

	Subfamilies	Genera	Species	1	2	3	4	5	6	7	8	9
70		*Eumerus*	*Eumerus nepalensis*								●	
71		*Ferdinandea*	*Ferdinandea longifacies*	●								
72			*Ferdinandea nepalensis*						●			●
73		*Graptomyza*	*Graptomyza brevirostris*								●	
74			*Graptomyza nigripes*			●						
75		*Kertesziomyia*	*Kertesziomyia aeneus*			●						●
76			*Kertesziomyia nigra*								●	
77		*Korinchia*	*Korinchia himalayensis*			●						
78		*Lycastris*	*Lycastris albipes*			●						
79			*Lycastris flavohirta*	●		●						
80		*Mesembrius*	*Mesembrius bengalensis*		●	●						
81			*Mesembrius quadrivittatus*			●						
82		*Milesia*	*Milesia balteata*			●						
83			*Milesia brunetti*								●	
84			*Milesia ferruginosa*								●	
85		*Monoceromyia*	*Monoceromyia javana*			●						
86			*Monoceromyia obscura*			●						
87			*Monoceromyia polistoides*								●	
88		*Myathropa*	*Myathropa semenovi*						●			
89		*Myolepta*	*Myolepta graciliventris*			●						●
90		*Orthonevra*	*Orthonevra himalayensis*	●								
91			*Orthonevra karnaliensis*						●			●
92		*Pararctophila*	*Pararctophila oberthueri*								●	
93		*Phytomia*	*Phytomia crassa*			●						
94			*Phytomia errans*	●		●						
95			*Phytomia zonata*			●						
96		*Psilota*	*Psilota shewelli*		●							●
97		*Pseudovolucella*	*Pseudovolucella decipiens*								●	
98			*Pseudovolucella hingstoni*	●								
99		*Rhingia*	*Rhingia binotata*	●								
100			*Rhingia creutzburgi*									●
101			*Rhingia laticincta*	●				●				
102			*Rhingia longifacies*									●
103			*Rhingia siwalikensis*									
104		*Sphegina*	*Sphegina abbreviata*			●						●
105			*Sphegina angustata*			●						●
106			*Sphegina bispinosa*	●								
107			*Sphegina hansoni*			●						●
108			*Sphegina hauseri*	●								●
109			*Sphegina setosa*			●						
110		*Syritta*	*Syritta indica*			●						
111			*Syritta orientalis*			●						
112			*Syritta pipiens*									
113		*Volucella*	*Volucella lividiventris*								●	
114			*Volucella trifasciata*			●						
115			*Volucella varipila*	●								
116	**Syrphinae**	*Allobaccha*	*Allobaccha apicalis*								●	
117			*Allobaccha elegans*								●	
118			*Allobaccha triangulifera*								●	
119			*Allograpta javana*	●								
120			*Allograpta maculipleura*			●						
121		*Asarkina*	*Asarkina bhima*								●	
122			*Asarkina ericetorum*	●								
123			*Asarkina incisuralis*			●						
124			*Asarkina porcina*			●						
125		*Asiobaccha*	*Asiobaccha nubilipennis*								●	
126		*Baccha*	*Baccha maculata*	●		●						
127		*Betasyrphus*	*Betasyrphus aeneifrons*	●								
128			*Betasyrphus bazini*	●								
129			*Betasyrphus isaaci*	●								
130			*Betasyrphus serarius*	●		●						
131		*Chrysotoxum*	*Chrysotoxum antiquum*								●	
132			*Chrysotoxum baphyrum*	●								
133			*Chrysotoxum convexum*								●	
134		*Citrogramma*	*Citrogramma citrinum*			●						
135			*Citrogramma clarum*								●	
136		*Dasysyrphus*	*Dasysyrphus orsua*	●		●			●			
137			*Dasysyrphus sublunulatus*						●			
138		*Didea*	*Didea fasciata*			●						
139			*Didea subalneti*									
140		*Dideoides*	*Dideoides kempi*	●								
141		*Dideopsis*	*Dideopsis aegrota*								●	
142		*Eosphaerophoria*	*Eosphaerophoria punctata*					●				●
143		*Epistrophe*	*Epistrophe aequalis*	●								

	Subfamilies	Genera	Species	1	2	3	4	5	6	7	8	9
144			*Epistrophe griseocinctus*								●	
145		*Epistrophella*	*Epistrophella shibakawae*								●	
146		*Episyrphus*	*Episyrphus arcifer*									
147			*Episyrphus balteatus*					●	●	●		
148			*Episyrphus viridaureus*			●			●	●		
149		*Eriozona*	*Eriozona analis*								●	
150		*Eupeodes*	*Eupeodes bucculatus*			●			●			
151			*Eupeodes confrater*	●		●			●			
152			*Eupeodes corollae*					●	●			
153			*Eupeodes latifasciatus*					●				
154			*Eupeodes nuba*								●	
155		*Ischiodon*	*Ischiodon scutellaris*	●					●			
156		*Leucozona*	*Leucozona kingdonwardi*								●	●
157			*Leucozona pruinosa*							●		
158		*Melangyna*	*Melangyna remota*			●						
159		*Melanostoma*	*Melanostoma orientale*	●		●		●	●	●		
160			*Melanostoma scalare*			●						
161			*Melanostoma univittatum*	●		●						
162		*Meliscaeva*	*Meliscaeva cinctella*	●		●						
163		*Meliscaeva*	*Meliscaeva tribeni*								●	
164		*Paragus*	*Paragus abrogans*								●	
165			*Paragus bicolor*			●						
166			*Paragus gulangensis*						●			
167			*Paragus haemorrhous*						●			
168			*Paragus karnaliensis*	●					●			●
169			*Paragus politus*	●		●						
170			*Paragus rufocinctus*		●							
171			*Paragus tibialis*	●								
172			*Paragus auritus*	●								
173			*Paragus crenulatus*	●								
174			*Paragus serratus*			●						
175			*Paragus yerburiensis*	●								
176		*Parasyrphus*	*Parasyrphus aeneostoma*								●	
177			*Parasyrphus kirghizorum*						●			
178			*Parasyrphus lineolus*						●			
179			*Parasyrphus makarkini*						●			●
180			*Parasyrphus montanus*						●			
181			*Parasyrphus punctulatus*						●			
182			*Parasyrphus sherpa*			●						●
183		*Platycheirus*	*Platycheirus albimanus*	●								
184			*Platycheirus alpigenus*						●			
185			*Platycheirus altotibeticus*						●			
186			*Platycheirus himalayensis*						●	●		
187			*Platycheirus immaculatus*							●		
188			*Platycheirus manicatus*	●								
189			*Platycheirus urakawensis*	●					●			
190		*Scaeva*	*Scaeva caucasica*					●	●			
191			*Scaeva hwangi*								●	
192			*Scaeva latimaculata*			●						
193			*Scaeva pyrastri*			●						
194		*Sphaerophoria*	*Sphaerophoria angulata*						●	●		●
195			*Sphaerophoria assamensis*	●								
196			*Sphaerophoria bengalensis*			●						
197			*Sphaerophoria indiana*	●		●			●			
198			*Sphaerophoria macrogaster*			●						
199			*Sphaerophoria scripta*			●			●			
200			*Sphaerophoria viridaenea*			●			●			
201		*Syrphus*	*Syrphus dalhousiae*								●	
202			*Syrphus fulvifacies*	●		●			●	●		
203			*Syrphus ribesii*								●	
204			*Syrphus torvus*	●		●			●	●		
205		*Vockerothiella*	*Vockerothiella laticornis*								●	

چک‌لیست به‌روز شده دوبالان خانواده Syrphidae در نپال

ارمیلا دیولا[1]، آنجیلا پانده[1]، تسلیما شیخ[2]، پرادیپ سوبدی[1] و محمد اصغر حسن[3]*

۱ بخش جانورشناسی، دانشگاه تریبهوان، کیرتیپور، کاتماندو، نپال
۲ بخش جانورشناسی دانشگاه طلوع خورشید، آلوار، راجستان، هند
۳ موسسه حشره‌شناسی، آزمایشگاه مرجع استانی توسعه و کاربرد منابع حشرات، دانشگاه گوئیژو، گوئیانگ، چین

* پست الکترونیک نویسنده مسئول مکـاتبه: *kakojan112@gmail.com*

| **تاریخ دریـافت:** ۳۰ آذر ۱۴۰۲ | **تاریخ پذیرش:** ۱۹ فروردین ۱۴۰۳ | **تاریخ انتشار:** ۱۳ تیر ۱۴۰۳ |

چکیـده: فهرست به‌روز شده گونه‌های شناخته شده مگس‌های گل کشور نپال شامل اطلاعات مربوط به پراکنش و فعالیت فصلی در نپال ارایه شد. این فهرست بر اساس کل اطلاعات منتشر شده در زمینه طبقه‌بندی، تنوع زیستی، اکولوژی و جنبه‌های زیست‌شناسی فون دوبالان خانواده Syrphidae کشور نپال تا سال ۲۰۲۳ است. مجموعاً ۲۰۵ گونه از سه زیرخانواده و ۶۳ جنس در نپال شناخته شده است. از بین سه زیرخانواده، Eristalinae مشتمل بر بیشترین تعداد گونه (۱۱۱ گونه، ۵۴٪) و پس از آن زیرخانواده‌های Syrphinae (۹۰ گونه، ۴۴٪) و Microdontinae (چهار گونه، ۲٪) قرار دارند. از این تعداد، ۴۸ (۲۳٪) گونه صرفا در نپال ثبت شده است. انتشار گونه‌های شناخته شده مگس‌های گل به صورت غیر یکنواخت است، استان‌های بگماتی (۸۲ گونه) و کوشی (۷۵ گونه) با بیشترین تعداد گونه و استان‌های مادهش (چهار گونه) و لومبینی (یک گونه) واجد کمترین تعداد گونهٔ ثبت شده هستند. بیشترین فعالیت گونه‌ها در ماه مه (۵۱ گونه) ثبت شده و پس از آن در ماه‌ها جولای (۵۰ گونه) و ژوئن (۴۸ گونه) اتفاق می‌افتند. ثبت فعالیت گونه‌ها در فصل زمستان نسبتاً کم بوده و داده‌های مربوط به انتشار برای برخی مناطق هنوز هم ناقص است. با توجه به بررسی حاضر، برای کاوش بیشتر فون مگس‌های گل، بایستی نمونه‌برداری جامع و منظم در سراسر کشور انجام شود.

واژگـان کلیدی: بیوجغرافی، مهار زیستی، توزیع، مگس‌های پهبادی، مگس‌های گل، هیمالیا