

Supplementary information

Table 1: Details of the sampling sites of the study.

Location	District and Province	Climatic zone	Latitude	Elevation (m)
1 Aluthgama, Hataraliyadda	Kandy, Central	Wet zone	7°18'51.40"N, 80°31'57.50"E	323
2 Ilukkumbura, Pitawala	Matale, Central	Intermediate zone	7°32'11.91"N, 80°46'20.71"E	501
3 Kandapola, Nuwaraeliya	Nuwaraeliya, Central	Intermediate zone	7°0'4.40"N, 80°49'31.30"E	1959
4 Pasikudah, Trincomalee	Batticaloa, Eastern	Dry zone	7°55'6.07"N, 81°33'58.87"E	4
5 Agbopura, Kantale	Trincomalee, Eastern	Dry zone	8°19'18.70"N, 80°58'12.10"E	72
6 Eppawala, Anuradhapura	Anuradhapura, North Central	Dry zone	8°7'49.99"N, 80°26'44.38"E	114
7 Diyabuma, Polonnaruwa	Polonnaruwa, North Central	Dry zone	7°56'3.21"N, 80°52'26.32"E	113
8 Walakumbura, Alawwa	Kurunegala, North Western	Wet zone	7°18'56.52"N, 80°15'37.89"E	124
9 Vithikuliya, Nikaweratiya	Kurunegala, North Western	Intermediate zone	7°43'3.60"N, 80°8'54.40"E	59
10 Karuwalagaswewa, Puttalam	Puttalam, North Western	Arid zone	8°8'1.98"N, 80°2'27.52"E	64
11 Urumale, Talaimannar	Mannar, Northern	Arid Zone	9°5'40.00"N, 79°42'17.20"E	7
12 Ariviyal Nagar, Kilinochchi	Mulaitivu, Northern	Dry zone	9°20'1.72"N, 80°24'9.00"E	45
13 Kitulgahakanda, Waharaka	Kegalle, Sabaragamuwa	Wet zone	7°4'45.21"N, 80°12'17.01"E	109
14 Ellawala, Eheliyagoda	Ratnapura, Sabaragamuwa	Wet zone	6°48'45.40"N, 80°15'57.80"E	76
15 Bentota	Galle, Southern	Wet zone	6°25'12.49"N, 80°0'7.60"E	2
16 Hambantota West, Hambantota	Hambantota, Southern	Arid zone	6°7'27.90"N, 81°6'26.70"E	2
17 Udayala, Kasagala	Hambantota, Southern	Intermediate zone	6°8'33.35"N, 80°48'37.96"E	34
18 Kadukanna, Thelijjavila	Matara, Southern	Wet zone	6°2'10.45"N, 80°29'52.03"E	23
19 Lenabatuwa, Kamburupitiya	Matara, Southern	Wet zone	6°5'22.61"N, 80°32'34.34"E	75
20 Pallegama, Deniyaya	Matara, Southern	Wet zone	6°19'6.30"N, 80°31'8.50"E	400
21 Kirawanabissa, Bandarawela	Badulla, Uva	Intermediate zone	6°51'35.20"N, 80°59'8.10"E	1196
22 Marangahawela, Kalupahana	Badulla, Uva	Intermediate zone	6°45'3.90"N, 80°50'15.90"E	861
23 Uva Mahawelagama, Koslanda	Badulla, Uva	Intermediate zone	6°43'2.91"N, 81°2'9.61"E	479
24 Napagoda, Nittambuwa	Gampaha, Western	Wet zone	7°8'55.99"N, 80°6'8.32"E	47

25 Cinnamon garden, Colombo	Colombo, Western	Wet zone	6°54'6.73"N, 79°51'35.91"E	4
26 Gurulubadda, Baduraliya	Kalutara, Western	Wet zone	6°29'12.32"N, 80°15'55.19"E	107
27 Pannila east, Matugama	Kalutara, Western	Wet zone	6°25'28.70"N, 80°7'5.98"E	38

Table 2: Features of specimens that are generally visible from different orientations used in the study.

Orientation	Visible features of the specimen
Dorsal view	Head: vertex, genae, antennae, compound eyes, ocelli, frons Mesosome: pronotum, mesonotum, scutellum, tegulae, parategulae, postscutellum, posterior portion of metanotum, propodeum, wings Metasome: dorsal metasomal terga (first tergum – sixth tergum)
Ventral view	Head: genae, mandibles, labrum, ligula, maxillae, labial palpi, clypeus, antennae, compound eyes Mesosome: prosternum, legs, mesosternum, metasternum, ventral plate of propodeum, wings Metasome: ventral metasomal sterna (first sternum – sixth sternum)
Lateral view (Left/Right)	Head: vertex, genae, compound eyes, antennae, clypeus, mandibles, maxillary palps, labial palps, maxillae Mesosome: prosternum, pronotum, mesonotum, tegulae, wings, scutellum, episternum and epimeron of mesopleuron, postscutellum, posterior portion of metanotum, episternum and epimeron of metapleuron, propodeum, legs Metasome: dorsal metasomal terga (first tergum – sixth tergum), ventral metasomal sterna (first sternum – sixth sternum)

Table 3: A numerical summary of the image dataset.

Subfamily	Genus	Species	Total Images
Eumeninae	Allorhynchium	<i>A. metallicum</i>	7
	Antepipona	<i>A. ceylonica</i>	27
		<i>A. ovalis</i>	8
	Anterhynchium	<i>A. abdominale abdominale</i>	8
	Antodynerus	<i>A. punctipennis</i>	12
	Cyrtolabulus	<i>C. suavis</i>	5
	Delta	<i>D. conoideum</i>	7
		<i>D. esuriens esuriens</i>	27
		<i>D. pyriforme</i>	9
	Knemodynerus	<i>K. coriaceus</i>	6
	Labus	<i>L. humbertianus</i>	8
		<i>L. pusillus</i>	7

	<i>Paraleptomenes</i>	<i>P. humbertianus</i>	14
		<i>P. miniatus mephitis</i>	19
	<i>Parancistrocerus</i>	<i>P. androcles androcles</i>	6
	<i>Phimenes</i>	<i>P. flavopictus</i>	13
	<i>Rhynchium</i>	<i>R. sp.</i>	10
	<i>Stenodyneriellus</i>	<i>S. nigriculus</i>	6
		<i>S. sichelii</i>	12
Polistinae		<i>P. stigma</i>	4
	<i>Polistes</i>		
	<i>Ropalidia</i>	<i>R. cyathiformis</i>	10
<i>R. fasciata</i>		10	
<i>R. marginata</i>		10	
		<i>R. stigma</i>	4
		<i>R. sp.</i>	4
Vespinae		<i>V. affinis</i>	28
	<i>Vespa</i>	<i>V. tropica</i>	19
Total			300