

Table 2 (cont.)

Таблица 2 (продолжение)

	<i>M. wittmeri</i> (9)		<i>M. wardi</i> (18)		<i>M. ordinaria</i> (17)		<i>M. rhytida</i> (17)	
	Mean±SD	Min-Max	Mean±SD	Min-Max	Mean±SD	Min-Max	Mean±SD	Min-Max
HW	0.77±0.029	0.73-0.81	0.79±0.048	0.70-0.85	0.85±0.022	0.82-0.90	0.88±0.043	0.78-0.94
HL	0.99±0.030	0.94-1.04	1.00±0.051	0.90-1.06	1.06±0.026	1.00-1.10	1.09±0.0470	0.99-1.15
FW	0.34±0.019	0.32-0.38	0.34±0.024	0.31-0.39	0.38±0.014	0.35-0.40	0.37±0.019	0.34-0.40
FLW	0.35±0.011	0.34-0.36	0.36±0.025	0.32-0.41	0.39±0.015	0.37-0.42	0.39±0.020	0.36-0.42
SL	0.77±0.027	0.73-0.80	0.78±0.041	0.70-0.84	0.84±0.033	0.78-0.90	0.87±0.046	0.76-0.92
PNW	0.55±0.023	0.52-0.58	0.59±0.031	0.52-0.63	0.62±0.021	0.58-0.66	0.64±0.034	0.56-0.70
PW	0.22±0.007	0.21-0.22	0.22±0.012	0.20-0.24	0.24±0.005	0.23-0.24	0.24±0.010	0.22-0.26
PPW	0.32±0.011	0.31-0.34	0.33±0.024	0.30-0.39	0.37±0.009	0.36-0.39	0.36±0.019	0.34-0.39
PH	0.29±0.009	0.27-0.29	0.29±0.014	0.27-0.31	0.30±0.009	0.28-0.31	0.32±0.016	0.29-0.34
PPH	0.33±0.010	0.31-0.34	0.34±0.022	0.31-0.38	0.39±0.013	0.37-0.42	0.35±0.017	0.32-0.37
PL	0.36±0.017	0.32-0.38	0.36±0.031	0.31-0.41	0.41±0.021	0.36-0.44	0.40±0.021	0.36-0.45
PPL	0.30±0.014	0.28-0.32	0.31±0.016	0.28-0.34	0.30±0.023	0.26-0.35	0.35±0.015	0.32-0.37
ESL	0.16±0.018	0.14-0.20	0.19±0.033	0.14-0.28	0.23±0.014	0.21-0.26	0.23±0.028	0.18-0.27
ESD	0.29±0.019	0.25-0.31	0.31±0.023	0.27-0.35	0.33±0.018	0.30-0.36	0.36±0.021	0.33-0.41
AL	1.31±0.042	1.23-1.36	1.36±0.068	1.20-1.46	1.52±0.035	1.46-1.56	1.46±0.068	1.33-1.57
HTL	0.73±0.022	0.70-0.76	0.73±0.035	0.64-0.78	0.82±0.027	0.76-0.86	0.81±0.045	0.74-0.87

to the mid points of the sides of the head. Their frontal carinae are straight but diverge posteriorly and the antennal club is 5-jointed.

Myrmica brancuccii Radchenko, Elmes & Collingwood, sp. n. (fig 1, 1-5)

Material. Holotype worker, Nepal, Utrot, 13.05. [19]83, leg. M. Brancucci (NHML). Paratypes: 5 workers, with the same label; 14 workers, Nepal, Lawarai, 21.05. [19]83, leg. M. Brancucci; 1 worker, Nepal, Lumle, 06. [19]88, leg. Collingwood; 9 workers, Pakistan, Chitral V., between Dir and Lavari Pass, 2400 m, 11.08. 1994, leg. S. Dacatra (NHML, NHMB, CAC, RIGATO, SIZK, ELMES).

Workers. Head elongate with convex sides, straight occipital margins and narrowly rounded occipital corners. Anterior clypeal margin prominent and narrowly rounded (not pointed). Eyes relatively small, almost circular. Frontal carinae slightly curved, but not curved outwards and not merging with rugae which surround antennal sockets. 3rd-5th funicular joints about 1.5 times longer than broad. In profile, promesonotal groove distinct and mesonotal dorsum appearing flat or slightly concave; mesonotum curved down abruptly to propodeum to form distinct, wide and deep mesopropodeal furrow. propodeal spines long and relatively very wide at their bases; they project backwards and upwards but slightly curve downwards towards their tips. In profile, petiole high with long anterior peduncle; its anterior surface sharply concave and posterior one nearly straight; dorsal surface of node appears quite short and slightly convex (arched, not flat). In profile, postpetiole appears subrectangular, with feebly convex dorsum, and relatively massive (much larger than petiole); from above, it wide in relation to petiole width. Spurs on middle and hind tibiae short and wide and pectinate only on their distal third.

Dorsal surfaces of head, frons, vertex and clypeus longitudinally rugose but occiput and temples have reticulated sculpture. Surfaces between rugae appear dull, being densely and coarsely punctured; frontal area and clypeus appear more or less shiny having only fine superficial sculpture; mandibles coarsely longitudinally rugose. Dorsum of alitrunk has an irregular sinuous transverse rugosity and reticulation (rugosity of propodeal dorsum may be reduced), and its surface appears dull being coarsely and densely punctured. Sides of alitrunk have similar punctures and sometimes have fine longitudinal striation. Both petiole and postpetiole appear dull, being densely coarsely punctured without rugae or striae. Exceptionally for *Myrmica* species, first gastral ter-

Table 3. The mean, minimum and maximum indices for workers of nine new species of *Myrmica*, calculated from the measurements summarised in table 2. The codes are as indicated in the text and the number of individuals measured are given in parenthesis. In one cases the holotype was the only specimen available

Table 3. Среднее, минимальное и максимальное значение индексов для рабочих 9 видов *Myrmica*, рассчитанные по промерам, приводимым в таблице 2. Расшифровку сокращений промеров см. в разделе "Методы"; количество измеренных особей дано в скобках. В одном случае голотип был единственным доступным экземпляром

	<i>M. brancuccii</i> (18)		<i>M. villosa</i> (14)		<i>M. vittata</i> (4)		<i>M. williamsi</i> (1)	<i>M. nitida</i> (17)	
	Mean	Min-Max	Mean	Min-Max	Mean	Min-Max	Holotype	Mean	Min-Max
CI	1.23	1.18-1.29	1.17	1.14-1.21	1.22	1.19-1.29	1.29	1.26	1.18-1.31
FI	0.43	0.40-0.45	0.46	0.45-0.48	0.45	0.43-0.49	0.43	0.45	0.41-0.47
FLI	1.06	1.02-1.10	1.03	1.02-1.06	1.07	1.02-1.06	1.09	1.04	1.02-1.06
SI1	0.82	0.78-0.88	0.88	0.87-0.89	0.87	0.86-0.90	0.79	0.77	0.74-0.79
SI2	1.01	0.94-1.10	1.02	1.00-1.06	1.06	1.03-1.15	1.02	0.97	0.91-1.00
PI1	1.25	1.11-1.38	1.24	1.17-1.29	1.43	1.37-1.56	1.25	1.28	1.17-1.38
PI2	0.45	0.41-0.48	0.44	0.42-0.46	0.55	0.51-0.58	0.49	0.46	0.40-0.47
PPI1	0.72	0.62-0.82	0.91	0.88-0.98	0.88	0.86-0.91	0.95	0.91	0.83-0.98
PPI2	1.04	1.00-1.09	1.00	0.97-1.05	0.95	0.94-0.97	0.96	0.98	0.94-1.02
PPI3	1.67	1.41-1.82	1.49	1.43-1.53	1.51	1.48-1.51	1.44	1.46	1.39-1.52
ESLI	0.38	0.34-0.43	0.26	0.23-0.29	0.34	0.33-0.35	0.18	0.19	0.14-0.21
ESDI	1.21	0.95-1.42	1.73	1.61-1.85	1.31	1.21-1.41	2.22	2.13	1.75-2.88
HTI	1.00	0.91-1.04	0.95	0.93-0.99	0.90	0.84-0.94	0.96	0.94	0.88-0.98

Table 3 (cont.)

Таблица 3 (продолжение)

	<i>M. wittereri</i> (9)		<i>M. wardi</i> (18)		<i>M. ordinaria</i> (17)		<i>M. rhytida</i> (17)	
	Mean	Min-Max	Mean	Min-Max	Mean	Min-Max	Mean	Min-Max
CI	1.28	1.26-1.30	1.27	1.24-1.31	1.24	1.19-1.29	1.24	1.20-1.28
FI	0.44	0.43-0.47	0.44	0.42-0.46	0.44	0.42-0.47	0.42	0.41-0.44
FLI	1.04	0.94-1.08	1.06	1.04-1.10	1.03	1.00-1.06	1.06	1.00-1.08
SI1	0.77	0.75-0.79	0.78	0.75-0.81	0.79	0.74-0.83	0.80	0.76-0.82
SI2	0.99	0.96-1.02	0.99	0.96-1.02	0.98	0.93-1.05	0.99	0.94-1.05
PI1	1.25	1.19-1.30	1.23	1.13-1.33	1.38	1.24-1.52	1.28	1.19-1.33
PI2	0.46	0.44-0.47	0.46	0.42-0.48	0.49	0.44-0.52	0.46	0.43-0.48
PPI1	0.92	0.89-0.96	0.92	0.85-0.98	0.76	0.68-0.90	1.00	0.96-1.06
PPI2	1.01	0.98-1.04	1.02	0.98-1.16	1.04	0.97-1.08	0.97	0.93-1.04
PPI3	1.50	1.45-1.57	1.53	1.41-1.62	1.58	1.54-1.65	1.49	1.37-1.57
ESLI	0.21	0.18-0.24	0.24	0.19-0.33	0.28	0.25-0.32	0.26	0.20-0.31
ESDI	1.76	1.43-1.91	1.66	1.20-2.20	1.39	1.24-1.52	1.57	1.39-1.93
HTI	0.95	0.91-0.98	0.94	0.88-1.02	0.95	0.91-1.00	0.92	0.83-0.97

gite distinctly punctato-striated and appears dull whereas remainder of gaster finely, superficially sculptured and appears shiny. Whole body has numerous straight hairs; those of lateral margins of head abundant and suberect, those of legs abundant and subdecumbent, and those of scape suberect. Colour generally dark reddish-brown but appendages slightly lighter.

Notes. The striato-punctuation on the first gastral tergite well discriminates *Myrmica brancuccii* from all other Eurasian *Myrmica* species. This could be a relatively polymorphic species in with comparison of other *Myrmica* species (see measurements in table 2). Its ecology, females and males are unknown.

Myrmica villosa Radchenko & Elmes, sp. n. (fig 1, 6-12)

Material examined: holotype worker, Dechhi Paka [Bhutan], 5 km O Pelela, 3300 m, 19-20.06.1972 (Natural-History Museum Basel Bhutan Expedition, 1972) (NHMB). Paratypes: 15 workers, 1 female (dealate), with the same label (NHML, NHMB, SIZK, ELMES)