Material and methods

This paper is based on the study of unidentified material from Naturhistorisches Museum, Basle (NHMB), The Natural History Museum, London (NHML), Philip Ward, University of California, USA (WARD), Fabrizio Rigato, University of Milan (RIGATO). It has been compared with type specimens and other specimens from the Museum of Comparative Zoology of Harvard University (MCZ), Museum d'Histoire Naturelle, Geneva (GENEVA), Institute of Zoology of Ukrainian National Academy of Sciences, Kiev (KIEV), Museo Civico di Storia Naturale, Genoa (MSNG), Zoological Museums of Moscow State University (ZMUM), Zoologisches Museum, Humboldt Universitдt, Berlin (ZMHB), Zoological Institute of Russian Academy of Sciences, St. — Petersburg (ZISP), The Hope Collections, University Museum, Oxford (UMO) and from the collections of Graham Elmes, Institute of Terrestrial Ecology, UK (ELMES), Maurizio Mei, Instituto di Zoologia, Roma (MEI), Cedric Collingwood, Leeds, UK (CAC) and Andreas Schulz, Leilingen, Germany (SCHULZ).

As previously (Radchenko, Elmes, 1998), we have made the following measurements on the type specimens and where possible a minimum sample of 15 specimens from other series, and used them to calculate a series of indices:

Measurements:

HL	length of head in dorsal view, measured in a straight line from the anterior point of median clypeal margin to mid-point of the occipital margin.
HW	maximum width of head in dorsal view behind the eyes.
FW	minimum width of frons between the frontal lobes.
FLW	maximum width between external borders of the frontal lobes.
SL	maximum straight-line length of antennal scape seen in profile.
AL	diagonal length of the alitrunk seen in profile, from the neck shield to the posterior margin of metapleural lobes (workers) and from the antero-dorsal point of alitrunk to posterior margin of metapleural lobes (females and males).
HTL	length of tibia of hind leg.
PNW	maximum width of pronotum from above in dorsal view (workers)
SCW	maximum width of scutum from above (females and males).
SCL	length of scutum + scutellum from above (females and males).
AH	height of alitrunk, measured from upper level of mesonotum perpendicularly to the level of lower margin of mesopleura (females and males).
PL	maximum length of petiole from above.
PPL	maximum length of postpetiole from above.
PW	maximum width of petiole from above.
PPW	maximum width of postpetiole from above.
PH	maximum height of petiole in profile.
PPH	maximum height of postpetiole in profile.
ESL	maximum length of propodeal spine in profile.
ESD	distance between tips of propodeal spine from above.
WL	maximum length of forewing (males and females).
WB	maximum breadth of forewing (males and females).

Indices:

Cephalic	CI = HL / HW	Post-petiole (2)	PPI2 = PPH / PPW
Frontal	FI = FW / HW	Post-petiole (3)	PPI3 = PPW / PW
Frontal-lobe	FLI = FLW / FW	Spine-length	ESLI = ESL / HW
Scape (1)	SI1 = SL / HL	Spine-width	ESDI = ESD / ESL
Scape (2)	SI2 = SL / HW	Alitrunk	AI = AL / AH
Petiole (1)	PI1 = PL / PH	Hind-tibia	HTI = HTL / HW
Petiole (2)	PI2 = PL / HW	Scutum	SCI = SCL / SCW
Post-petiole (1)	PPI1 = PPL / PPH	Wing-length (1)	WI1 = WL / HW
		Wing-length (2)	WI2 = WL / WB

Results

The morphometrics made on the holotypes of the new species can be found in table 1 (workers) and table 4 (queen); the morphometrics of 15 specimens (or as many as were available) are given in table 2 (workers) and table 4 (gynes and males), and the various indices calculated from these for tables 3 and 5. All the new species have the