World distribution of the genus
Nineta NAVÁS 1912 (Neuroptera: Chrysopidae),
with some taxonomic notes

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Abstract: The world distribution of 17 species of the genus Nineta is given. Eight of them are eastern Palaeartic, two occurring in Central Asia (N. afghanica, N. pomacea), four localised in China (N. abunda, N. dolichoptera, N. grandis, N. shaanxiensis), and two in the far eastern part of Asia (N. alpicola, N. itoi). Two species (N. carinthiaca, N. vitata) are both eastern- and western Palaeartic. Two species are extensive west-Palaeartic, one of them (N. flava) reaching eastwards Iran and Bachkiria, the other one (N. guadamensis sensu lato), not well defined in literature, extends eastwards up to Caucasus and southwards to North-Africa. Three species (N. inpunaata, N. pallida, N. principiae) only occur in the west Palaeartic. Two species (N. grava, N. nanina) are western Nearctic. In addition, a Tropical Asian Nineta is yet undescribed. The differences between N. alpicola and N. carinthiaca are discussed.

Key words: Chrysopidae, green lacewing, Nineta, geographic distribution.

Pattern of the genus and affinities

Among Chrysopinae Chrysopini, the genus Nineta NAVÁS, 1912 is characterized by:

- a large or medium size, wing span being wider than 30 mm;
- symmetrical mandibles with small basal tooth on each;
- claws with basal rectangular dilation;
- abdominal sternites 8 and 9 of the male not fused;
- ectoprocts elongate apically;
- sternite 9 of the male elongate in an apex more or less acute, curved dorsally and more often apically trimmed with a tuft of short brush-like setae;
- larva fusiform, naked.

The genus Tumeochrysa NEEDHAM, 1909 is phylogenetically close to Nineta. It is very similar, especially in the symmetrically toothed mandibles, in the male genitalia and abdominal apex structure. However, Tumeochrysa differs by the grossly enlarged scapes, the short distal cubital cell in forewing closed before posterior margin, numerous gradates shared out in three or four irregular series (BROOKS & BARNARD 1990).

Geographic distribution

The genus Nineta includes presently 17 species, all distributed in the Holarctic zone. The data hereunder given concern their occurrence with respect to political countries or smaller territorial units (state, republic, province) in the case of federate and/or very large countries. Citations are the earliest known by the author. The Alps harbours the greatest number of sympatric species: six are found in Austria and Slovenia.

The genus Tumeochrysa includes 7 species, the distributions of which are central- and eastern Palaeartic, occurring from the Himalayan zone (Nepal) to Taiwan.

Nineta flava (SCOPOLI 1763)

Western Palaeartic extensive (Fig. 1), common. Of note it is absent (lack of information?) from Albania and Mediterranean islands except Sicily (ASPÖCK & al. 1980).


1This contribution is friendly dedicated to Univ.-Prof. Dr. Horst Aspöck to do honour to his 65th anniversary. We met for the first time in 1980, our research activity on Neuroptera — mine only was beginning — taking us to Graz in the First International Symposium of Neuropterology. From that time, regular meetings allowed me to keep contact and to make him a colleague model. Of our collaboration in proceedings' edition, I retain a high idea of his authority, his efficiency, his prodigious working ability together with his amiableness.
**Nineta vittata** *(WESMAEL 1841)*

Holopalaearctic, Eurasian (Fig. 2).


**Nineta pallida** *(SCHNEIDER 1846)*

Western Palearctic (Fig. 3). Associated with conifers.


**Nineta guadarramensis (Picket 1865)**

Western Palaearctic extensive, Mediterranean (northwestern Africa) (Fig. 4).

*Nineta guadarramensis* was described from Spain in the middle of the nineteenth century and was found later (1883) in Italy by MCLACHLAN. Only hundred years later, it was collected in Central Europe and in other extra-mediterranean European countries. MONSERRAT (1980) observed the diversity in the relevant morphs. He introduced the sub-species *N. principiae* to characterise the Italian specimens, afterwards erected as a bona fide species by CANARD et al. (1998). Thus part of the data given hereunder as sensu lato is dubious and needs revision.

**Nineta guadarramensis sensu lato**


**Nineta guadarramensis guadarramensis sensu stricto**


**Nineta inpunctata (Reuter 1894)**

Western Palaearctic (Fig. 3).


**Nineta dolichoptera (Navás 1910)**

Eastern Palaearctic (Fig. 5). Male undescribed?


**Nineta alpica (Kuwayama 1956)**

Eastern Palaearctic, possibly Japanese endemic (Fig. 5) as expected below in Taxonomic remarks. Japan, Hokkaido, Honshu: O. D.

**Nineta carintiaca (Hölzel 1965)**

Holopalaearctic, from the Alps to Far-eastern Asia (Fig. 2). The actual eastern extension of *N. carintiaca* needs to be checked due to a possible synonymy with *N. alpica* and/or overlap of their respective distributions.


*Nineta principiae* MONSERRAT 1980

The distribution of *N. principiae* is probably much wider than appearing in the literature, because of possible confusion with *N. guadarramensis* (see above). The citations given hereunder are those in which *N. principiae* is formally identified as species or sub-species. The provisional distribution thus manifested is western Palaearctic (Fig. 4). Probably a tree-top inhabiting lacewing.


*Nineta afghanica* HÖLZEL 1982

Palaearctic, Central Asia (Fig. 5). Montane habitat. Male undescribed. Afghanistan: O. D.

*Nineta pomacea* ZAKHARENKO 1983

Palaearctic, Central Asia (Fig. 5). Montane habitat. ex-USSR Tadjikistan: O. D.

*Nineta abunda* YANG & YANG 1989

Eastern Palaearctic (Fig. 5). China, Shaanxi Province: O. D.

*Nineta shaanxiensis* YANG & YANG 1989

Eastern Palaearctic (Fig. 5). China, Shaanxi Province: O. D.

*Nineta itoi* TSUKAGUCHI 1995

Far-eastern Palaearctic, possibly Japanese endemic (Fig. 5). Japan, Honshu, Kyushu: O. D.

**Taxonomic remarks**

In their review of the green lacewing genera of the world, BROOKS & BARNARD (1990) pointed out a Nineta found long ago (end of the nineteenth century?) in the Nilgiri Hills, southern India, at a latitude of about 12 °N. The three specimens kept in the British Museum's collection pertain to a taxon which has still not been described (BROOKS, in lit.). The occurrence of this new species in the tropical zone extends the distribution of the genus further southward than is otherwise the case. For instance, DONG (in lit.) reports *N. vittata* occurring in Taiwan at 22 °N and all other species were recorded north of this.
Besides, a single male specimen of *Nineta* was described as *N. alvesi* by NAVÁS in 1917 from Pontevedra, in northwestern Spain. Its status remains dubious, for lack of available specimens other than the type (not seen) now housed in the Museo de Zoología in Barcelona (MONSERRAT 1985). *Nineta alvesi* was synonymized with *N. guadarramensis* by HÖLZEL (1965b). However, the original description indeed shows some traits common with *N. guadarramensis* and *N. principiae*, such as black outer gradates and ectoprocts extending off sternite 9; but it is of smaller size and it has a reduce number of inner gradates (< 10) which are green (vs black) in the hindwing; dorsally, the prothorax has some brown markings, the ectoprocts are curved downwards, and sternite 9 is elongate and bifid, turned up forwards at acute angle (Fig. 7a).

In his monograph devoted to “Chrysopidae of Japan”, TSUKAGUCHI (1995) considers *N. carinthiaca* as a junior synonym of *N. alpicola*. However, original descriptions together with illustration of adults [e.g. in ASPÖCK & al. (1980) for *N. carinthiaca* and in TSUKAGUCHI (1995) for *N. alpicola*) do not support this synonymy. The male of *N. alpicola* has the apex of sternite 9 slightly curved and not expending forwards and incidentally, closer to the outline of *N. flavia* (Fig. 7b), (shape confirmed by pinned specimen). Conversely, the male of *N. carinthiaca* is drawn turned up angularly and slightly forwards and so, much closer to *N. vitata* (Fig. 7c). As far as described and illustrated, the third instar larvae look different. That of *N. alpicola* pictured in GEPP (1983b) and that of *N. alpicola* in TSUKAGUCHI (1995) show conspicuous differences. In *N. alpicola* larvae, the head markings and the coloration of palpi and flagellum of antennae are brown vs fuscous in those of *N. carinthiaca* (Fig. 8); the prothorax of *N. alpicola* larvae has two straight brown longitudinal spots, meso- and metathorax each have a small round brown spot, the pygidial coloration is of small size, whereas all marks of those of *N. carinthiaca* are larger. We may consider the two species separate. But in any case, the specimens caught in far eastern Russia (Primoriye, Sakhalin, Kamchatka) and Korea could be re-examined in order to clarify their actual status and to assert a possible Japanese endemism of *N. alpicola* sensu stricto.

**Endangered species**

In the countries where endangered Neuroptera have been surveyed, some green lacewing species of the genus *Nineta* appear among them: GEPP (1983a, 1994) for Austria, OHM (1984), SAURE & GRETSBERGER (1991) and RÖHRICHT & TRÖGER (1998) for Germany, GROPPELLI & PRIANO (1992) for Italy, DEVETAK (1992a) for Slovenia, DUENEL (1994) for Switzerland.

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References

[Asterisked references concern the original descriptions of species (*) and of genera (**)].


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