

## New synonymies and host records for lice of the genus *Menacanthus* (Phthiraptera: Menoponidae) from the Passeriformes (Aves)

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Twenty new synonymies are proposed and 42 new host associations are given for chewing lice of the genus *Menacanthus* Neumann, 1912, parasitic on members of the avian order Passeriformes.

Keywords: lice; Phthiraptera; Menoponidae; *Menacanthus*; new synonymies; new host records; Passeriformes

### INTRODUCTION

The cosmopolitan genus *Menacanthus* Neumann, 1912, includes a large number of species parasitic on birds of the orders Passeriformes (perching birds), Piciformes (woodpeckers and toucans), Tinamiformes (tinamous) and Galliformes (game birds). Price (1975, 1977) revised the *Menacanthus* lice from the Passeriformes, synonymising a great number of nominal species and setting standards for what we recognise as meaningful, useful descriptions in this group of chewing lice.

However, since 1977 many new species of passeriform *Menacanthus* have been published by authors who either have not seen papers by Price (1975, 1977) or do not follow his taxonomic conclusions. Among those species, we have recognised a considerable number of new synonymies, and have been able to identify and synonymise two out of six species listed as *nomina dubia* by Price (1977: 218). Furthermore, in the course of examining collections previously unavailable to us, we have identified a large number of new host records within this louse genus. In this paper, we report these findings to assist other workers in the update of their records by the application of the current names to louse collections.

We are well aware of the importance of examining the type specimens of any species or subspecies regarded as potential junior synonyms. For that purpose, we made a special effort to borrow the types of all *Menacanthus* taxa proposed as synonyms in this paper. We sent letters requesting short term loans to several collection-holding institutions in the Czech Republic, Germany, Hungary, Poland, Spain and Ukraine. Unfortunately, our borrowing success rate has been very limited. Therefore, in the many instances where types have not been examined, our decisions are based on published descriptions, additional samples from type hosts and identified reference material studied by Price (1975, 1977). The taxonomic nomenclature of the hosts follows Howard & Moore (1991).

### LIST OF ABBREVIATIONS FOR REPOSITORY INSTITUTIONS

DEUM – Department of Entomology, University of Minnesota, St Paul, Minnesota, U.S.A.  
HMBH – Hungarian Natural History Museum, Budapest, Hungary.

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KCEM – K.C. Emerson Entomology Museum, Oklahoma State University, Stillwater, Oklahoma, U.S.A.

MONZ – Museum of New Zealand Te Papa Tongarewa, Wellington, New Zealand.

USNM – National Museum of Natural History, Smithsonian Institution, Washington, D.C., U.S.A.

WUWP – Department of General Parasitology, Wrocław University, Wrocław, Poland.

ZMHU – Museum für Naturkunde, Zentralinstitut der Humboldt Universität zu Berlin, Germany.

#### NEW SYNONYMIES

Senior synonyms [in **bold type**] — with a summary of their host distribution taken from our current host-lice files — are followed by our proposed new synonymies. Under each new synonym, we discuss briefly our rationale for relegating it to junior synonym status.

*Menacanthus alaudae* (Schrank, 1776)

*Pediculus alaudae* Schrank, 1776: 115.

*Menacanthus alaudae*; Price, 1977: 210.

Type host: *Alauda arvensis arvensis* (Linnaeus).

[Recorded from 24 host species, 16 genera, eight families]

*Menacanthus cannabinae* Fedorenko & Bel'skaya, 1980: 91 (new synonymy).

Type host: *Acanthis cannabina* (Linnaeus) [as *Cannabina cannabina*].

In their original description, Fedorenko & Bel'skaya (1980) included five line drawings as well as dimensions of total length and ventral head spine length made from one male and four female *Menacanthus* lice. These features clearly associate *M. cannabinae* with *M. alaudae*. Fedorenko & Bel'skaya (1980) regarded *M. cannabinae* as nearest to *M. carduelis* (Denny, 1842), a taxon placed by Price (1977: 210) as a junior synonym of *M. alaudae*. We have no hesitation in regarding *M. cannabinae* also as a junior synonym of *M. alaudae*.

*Menacanthus stiefeli* Balát, 1981: 275 (new synonymy).

Type host: *Acanthis flavirostris* (Linnaeus) [as *Carduelis flavirostris flavirostris*].

The description by Balát (1981), based on three males and three females, provides only equivocal generalities on shape and chaetotaxy, plus a tabulation of certain dimensions. The only illustrations are two poor photographs of male and female whole mounts. Balát compared *Menacanthus stiefeli* against one male and one female of *M. carduelis*, but the latter species was regarded as a junior synonym of *M. alaudae* by Price (1977). In a footnote, Balát (1981: 275) states: "While this paper was still in press a description of *Menacanthus cannabinae* Fedorenko et Belskaya, 1980 was published .... parasitic on *Carduelis cannabina*. As this host is considerably close to the species *C. flavirostris*, a great similarity of this new species to the species *M. stiefeli* sp.n. may be anticipated." We agree completely, as we consider that both *M. cannabinae* and *M. stiefeli* are conspecific with *M. alaudae*.

*Menacanthus mongolicus* Mey, 1982: 159 (new synonymy).

Type host: *Podoces hendersoni* Hume [in error ?].

This new species was described from a single female with a badly distorted abdomen, with a member of the Corvidae as type host. The four simple generalized line drawings of head features, together with the limited quantitative data in the text, and a single poor quality photograph of the entire female, represent a louse distinctly different from all of the three *Menacanthus* species widely distributed among the Corvidae: *M. eurysternus* (Burmeister, 1838), *M. gonophaeus* (Burmeister, 1838) and *M. merisui* Eichler, 1953. We agree with Mey (1982: 159) that *M. mongolicus* belongs to the *alaudae* species-group as defined by Price (1977) but, as we can not find significant differences from *M. alaudae*, we believe the

single type specimen is most likely a straggler or contaminant and we regard *M. mongolicus* as a junior synonym of *M. alaudae*.

*Menacanthus chrysophaeus* (Kellogg, 1896)

*Colpocephalum chrysophaeus* Kellogg, 1896: 520.

*Menacanthus chrysophaeus*; Price, 1977: 212.

Type host: *Zonotrichia melodia samuelis* (Baird).

[Recorded from seven host species, four genera, one family]

*Menacanthus spodocephalae* Fedorenko, 1978: 44 (new synonymy).

Type host: *Emberiza spodocephala* Pallas.

#### Material examined

Ex *Emberiza spodocephala*: 1 female, Japan: Asahigaoka, Yamanashi, 15 Aug. 1969, coll. H. E. McClure, slide H-0130 (KCEM); 1 male, Mongolia: Terehidsh, 10 Jun. 1979, slide 419.6 (KCEM).

Although this species was described from a long series of 26 males and 41 females, we found no reliable character in the original description — either the text or the four line drawings — to distinguish *M. spodocephalae* from *M. chrysophaeus*. Our examination of a male and female pair from the type host of *M. spodocephalae* confirms our identification of this taxon as a junior synonym of *M. chrysophaeus*. The latter is restricted in its known distribution to hosts of the family Emberizidae.

*Menacanthus curuccae* (Schrank, 1776)

*Pediculus curuccae* Schrank, 1776: 113.

*Menacanthus curuccae*; Price, 1977: 215.

Type host: *Sylvia curucca curucca* (Linnaeus).

[Recorded from 14 host species, four genera, two families]

*Menacanthus vistulanus appositus* Fedorenko, Kharambura & Achmyetzyanova, 1980: 92 (new synonymy).

Type host: *Sylvia communis* Latham.

*Menacanthus vistulanus ultimus* Fedorenko, Kharambura & Achmyetzyanova, 1980: 93 (new synonymy).

Type host: *Sylvia nisoria* (Bechstein).

These two subspecies, described from, respectively, three females and one female, are clearly conspecific with *M. curuccae*. Price (1977: 215) synonymised *M. vistulanus* Eichler & Zlotorzycza, 1963 (type host *Sylvia borin* Boddaert) with *M. curuccae*, and also included nine females and one male from *S. communis* (type host of *M. vistulanus appositus*) as conspecific. The seven line drawings provided by Fedorenko et al. (1980) are clear and accurate, and they reinforce our confidence that these synonymies are correct.

*Menacanthus mauersbergeri* Mey, 1982: 157 (new synonymy).

Type host: *Acrocephalus aedon aedon* (Pallas).

The description by Mey (1982) including his clear illustrations of *Menacanthus mauersbergeri*, based on one male and four females, contains no significant features to distinguish it from *M. curuccae*. Mey himself (1982: 158) commented: "*M. curucca* [sic] (Schrank, 1776) und *M. vistulanus* Eichler & Zlotorzycza, 1963 sehr nahestehend." We agree with his assessment and consider these three taxa as conspecific.

*Menacanthus eurysternus* (Burmeister, 1838)

*Menopon eurysternum* Burmeister, 1838: 439.

*Menacanthus eurysternus*; Price, 1975: 617.

Type host: *Pica pica pica* (Linnaeus).

[Recorded from 158 host species, 90 genera, 32 families]

*Menacanthus schildmacheri* Eichler, 1953: 174 (new synonymy).

*Menacanthus schildmacheri*; Price, 1977: 218 [as *nomen dubium*]

Type host: *Prunella modularis* (Linnaeus).

#### Material examined

Ex *Prunella modularis*: Two female syntypes, no data (ZMHU); 8 males, 22 females, Scotland: Skerryvore, Oct. 1988, coll. B. Zonfrillo (MONZ); 3 males, 5 females, Scotland: Ailsa Craig, 14 Mar. 1991, coll. B. Zonfrillo (MONZ).

*M. schildmacheri* was listed as a *nomen dubium* by Price (1977: 218) on the basis that: (a) its original description was grossly inadequate (only 12 printed lines and a simple outline of a ventral head spine); (b) it was based on females only; and (c) his lack of access to the types or authenticated material from the type host. Our examination of two syntypes and additional specimens from the type host shows clearly that they are all conspecific with *M. eurysternus*. We are confident that *M. schildmacheri* is a junior synonym of the very widespread louse species *M. eurysternus*.

*Menacanthus wipszyckii* Eichler & Zlotorzycza, 1963: 373 (new synonymy).

*Menacanthus wipszyckii*; Price, 1977: 218 [as *nomen dubium*]

Type host: *Carduelis chloris* (Linnaeus) [as *Chloris chloris*].

#### Material examined

Ex *Carduelis chloris*: holotype female, Wrocław, Poland, 14 Nov. 1953, coll. J. Zlotorzycza, slide 4/h/4 (WUWP).

*M. wipszyckii* was listed as a *nomen dubium* by Price (1977: 218) on the basis that: (a) its original description was grossly inadequate; (b) it was described from a single female only; and (c) his lack of success in obtaining the holotype or authenticated material from the type host. The description includes a poor photograph of the head, thorax and anterior part of the abdomen of the holotype, a table of its dimensions, and a line drawing of a ventral head spine. We have now been able to examine this holotype and to compare it with other specimens identified by us as *M. eurysternus*, as well as with related species. All features of this single female are consistent with those of *M. eurysternus*. Therefore, we regard *M. wipszyckii* as a junior synonym of *M. eurysternus*.

*Menacanthus chabaroviensis* Fedorenko, 1978: 45 (new synonymy).

Type host: *Turdus dissimilis hortulorum* Sclater [as *Turdus hortulorum*].

*Menacanthus volkovi* Fedorenko, 1978: 47 (new synonymy).

Type host: *Zoothera dauma* Latham [as *Turdus dauma*].

#### Material examined

Ex *Turdus dissimilis hortulorum*: 1 female, Hong Kong: Parkfulum, 31 Jan. 1966, slide 6E-0705 (KCEM).

The descriptions of these two species by Fedorenko (1978), especially the six line drawings given for each one, provide sufficient and accurate information which enables us to place them with confidence as junior synonyms of *M. eurysternus*. The specimens on which Fedorenko based these species (one male and two female *Menacanthus chabaroviensis* ex '*Turdus hortulorum*', and two female *M. volkovi* ex '*Turdus dauma*') appear to be typical

members of this widely distributed species of *Menacanthus*. Furthermore, *M. eurysternus* is also known from 14 other species of *Turdus* and *Zoothera*.

*Menacanthus turkmenicus* Fedorenko & Kekilova, 1978: 55 (new synonymy).

Type host: *Turdus ruficollis* Pallas.

#### Material examined

Ex *Turdus ruficollis atrogularis* Jarocki: 1 female, India: Rajasthan, Bharatpur, 25 Jan. 1968, slide SE-0613 (KCEM).

The original description of *M. turkmenicus* is based on two females only. The details of the line drawings of the head, antenna, and margin of the subgenital plate, together with the dimensions provided, clearly place *M. turkmenicus* as a junior synonym of *M. eurysternus*. Our examination and identification of one female *Menacanthus* from the type host of *M. turkmenicus* as *M. eurysternus*, further confirm this synonymy.

*Menacanthus grandis* Fedorenko & Lunkaschu, 1987: 137 (new synonymy).

Type host: *Turdus viscivorus* Linnaeus.

The lengthy text description and the four figures — especially those of the head and of the stout abdominal tergal setae — of *Menacanthus grandis* given by Fedorenko & Lunkaschu (1987) represent, in our opinion, *M. eurysternus*. These authors regard *M. grandis* as closest to *M. polonicus* Eichler & Zlotorzycza, 1963, in size and morphological features. Price (1975: 619) had already placed *M. polonicus* as a junior synonym of *M. eurysternus*, thus reinforcing our proposal to regard *M. grandis* as a junior synonym of *M. eurysternus* as well. The type hosts of *M. grandis* and *M. polonicus* (respectively *Turdus viscivorus* and *T. pilaris*) add to the other 12 *Turdus* species recorded as hosts of *M. eurysternus* (see Price 1975: 621, and this paper).

Fedorenko & Lunkaschu (1987) based their description of *M. grandis* on eight females and seven nymphs collected by Lunkaschu who, in 1971, had recorded them as *M. minusculus* Blagoveshtchensky, 1940 (type host *Turdus philomelos*). Therefore, under their heading for *M. grandis* sp.n., they quote "*Menacanthus minusculus* Lunkaschu 1971, nec Blag. 1940" as a synonym of *M. grandis*. Thus, they created an unnecessary and invalid homonym due to their belief that Lunkaschu's (1971) identification of *M. minusculus* Blagoveshtchensky was incorrect. In fact, this identification was correct and — although we now regard *M. minusculus* as a synonym of *M. eurysternus* (see Price 1975: 619) — Fedorenko & Lunkaschu (1987) were wrong in attributing the authorship of *M. minusculus* to Lunkaschu (1971).

*Menacanthus tichodromae* Rékási, 1995: 101 (new synonymy).

Type host: *Tichodroma muraria* (Linnaeus).

#### Material examined

Ex *Tichodroma muraria*: holotype female and paratype male, Pannonhalma, Hungary, 15 Nov. 1993, slides 1627 (HMBH).

This species is based on one male, one female and a third instar nymph. Although Rékási (1995) supplies more than a page of text, his description of *M. tichodromae* is quite inadequate. Mostly, it includes morphological generalities with confusing and unnecessary Latin terminology. His illustrations are eight photographs, and no line drawings. Our examination of the types shows that all significant features, which can also be seen in the photographs, agree perfectly with the concept of *M. eurysternus* as defined by Price (1975). Rékási (1995: 104) mentions the male body length of *M. tichodromae* as being less than that of *M. eurysternus* (1.19 mm as against 1.20–1.63 mm); this is certainly not a significant difference and is easily explained by the telescoped male abdomen shown in Rékási's fig.

1A. He also claims the male genitalia are shorter than those of *M. eurysternus* (0.31 mm as against 0.35–0.46 mm); this discrepancy is perhaps due to the difficulty of determining the exact position of the proximal end of the basal plate.

***Menacanthus nogoma* Uchida, 1926**

*Menacanthus nogoma* Uchida, 1926: 20.

*Menacanthus nogoma*; Price, 1977: 213.

Type host: *Eriothacus calliope* (Pallas).

[Recorded from seven host species, four genera, two families]

*Menacanthus orientalis* Fedorenko, 1978: 42 (new synonymy).

Type host: *Eriothacus cyane* (Pallas) [as *Luscinia cyane*].

Fedorenko (1978) examined a series of six males and 10 females to describe *M. orientalis*. In our opinion, the original description, which includes four clear figures as well as dimensions, does not provide means to separate *M. orientalis* from *M. nogoma*. Price (1977: 213) examined two male and six female *Menacanthus* from *Eriothacus cyane* (type host of *M. orientalis*) and identified them as *M. nogoma*. We conclude that *M. orientalis* is not a distinct species and therefore place it as a junior synonym of *M. nogoma*.

***Menacanthus pusillus* (Nitzsch, 1866)**

*Menopon pusillum* Nitzsch, 1866: 120.

*Menacanthus pusillus*; Price, 1977: 213.

Type host: *Motacilla alba* Linnaeus.

[Recorded from nine host species, two genera, one family]

***Menacanthus campestris* Fedorenko, 1979: 14 (new synonymy).**

Type host: *Anthus campestris* (Linnaeus).

Fedorenko (1979) described *M. campestris* from a series of four females, the description including four line drawings and minimal dimensional data. These drawings fit the female specimens of *M. pusillus* studied by Price (1977: 213), and the dimensions of *M. campestris* fall well within the variability range of *M. pusillus*. Therefore, we regard *M. campestris* as no more than a junior synonym of *M. pusillus*. Furthermore, Fedorenko referred to *M. trivialis* Zlotorzyccka, 1973, as close to *M. campestris*, but Price (1977) had already synonymised *M. trivialis* with *M. pusillus*.

***Menacanthus montanus* Fedorenko & Kharambura, 1980: 84 (new synonymy).**

Type host: *Anthus spinoletta* (Linnaeus).

*Menacanthus montanus* was described from one male and four females. The original description includes five figures and sufficient quantitative data, all of which allow us to regard it confidently as a junior synonym of *M. pusillus*. Furthermore, Price (1977: 213) had previously identified as *M. pusillus* a series of three males and four females from *A. spinoletta*, the type host of *M. montanus*.

***Menacanthus hispanicus* Soler Cruz, Benítez Rodríguez & Alcántara Ibáñez, 1982: 259 (new synonymy).**

Type host: *Anthus pratensis* (Linnaeus).

***Menacanthus andalus* Soler Cruz, Benítez Rodríguez & Alcántara Ibáñez, 1982: 260 (new synonymy).**

Type host: *Anthus pratensis* (Linnaeus).

Each of these new species was based on a single female taken from the same host species. The descriptions, while abundant in detail and with a somewhat diagrammatic illustration of

the whole female for each, reveal nothing of significant value for their separation from *M. pusillus*. Price (1977: 213) had already identified lice from *Anthus pratensis* as *M. pusillus*, but Soler Cruz et al. (1982) made no reference to Price's paper. The description of two new, very similar species within the same louse genus, each based on a single specimen and both from the same host species, carries the concept of louse/host specificity to a level we consider extremely unnatural.

***Menacanthus takayamai* Uchida, 1926**

*Menacanthus takayamai* Uchida, 1926: 22.

*Menacanthus takayamai*; Price, 1977: 216.

Type host: *Cettia diphone cantans* (Temminck & Schlegel).

[Recorded from eight host species, three genera, one family]

***Menacanthus obrteli* Balát, 1981: 274 (new synonymy).**

Type host: *Locustella luscinioides luscinioides* (Savi).

The original description of *Menacanthus obrteli* was based on six females. In our opinion, the principal reason motivating Balát to describe *M. obrteli* as a new species was his belief that no *Menacanthus* had previously been described from this host genus. He may have been unaware that Price (1977: 216) had reported *M. takayamai* from three other species of *Locustella*: *L. fasciolata* (Gray), *L. lanceolata* (Temminck), and *L. ochotensis* (Middendorff) (the latter as *Acrocephalus ochotensis*). Balát (1981) included only a single poor photograph of *M. obrteli*, with minimal text description. He devoted effort to comparing *M. obrteli* with "*M. eisenachensis* sp. n.", an undescribed species of *Menacanthus* that was presumably in press elsewhere, for lice from *Acrocephalus scirpaceus* (Hermann). To the best of our knowledge, "*M. eisenachensis* sp. n." has never been properly published, although the name is now valid (see below under NOMINA DUBIA). None of the described morphological details of *M. obrteli* are at variance with those of *M. takayamai*, and therefore we regard these species as conspecific.

**DISCUSSION**

We are confident that the large number of new synonymies we have reported here for several species of the passerine louse genus *Menacanthus* is fully justified. The original descriptions of these junior synonyms almost invariably suffered from the same series of predictable shortcomings.

The authors of these descriptions were apparently so preoccupied with the a priori assumption of a high degree of louse/host specificity that they felt under no obligation to justify their new taxa on an adequate morphological basis. They provided inadequate text descriptions with simple line drawings and/or poor photographs, in the belief that this would support their new taxa. They even described new taxa from hosts that already had one *Menacanthus* species recorded from them. In one case (see under *Menacanthus pusillus* above) two new species were described from the same host species already known to be parasitised by a recognised *Menacanthus* species, without adequate comparison with the existing species.

Price (1975, 1977) has demonstrated that the *Menacanthus* species from passerines often show a low degree of host specificity, and this has been supported by subsequent records. The seven known louse species, senior to all of the 20 new synonyms discussed above, are currently recorded from as few as seven host species to as many as 158. When a new species of *Menacanthus* is described, without any meaningful morphological separation, from a bird taxonomically placed within the known host range of a relatively widespread louse species, its validity must be questioned. To assume that any louse found on an unrecorded host automatically belongs to a new species is poor science and leads to unnecessary confusion which will require further research, such as presented in this paper, to clarify name usage.

The original text descriptions ranged from very brief to excessively long but, in all cases, they lacked relevant details to identify the "new" taxon as unequivocally different. Usually they contained descriptors of a nature so general that they are true for a vast number of other *Menacanthus* or even other menoponid lice. They contained minimal or no morphological comparison between the "new" and other closely related species within the genus, and the author did not always prove the case for a new species. Some accounts, at most, mentioned one to several of the presumed related taxa, but often the species names used for this comparison were an indication that the describer either was unaware of the updated literature or did not recognise the conclusions reached by the revisers. Identification keys were invariably absent. Publications of such poor quality have no place in modern taxonomy and are only further evidence of the preconceived notion of a high degree of louse/host specificity.

The samples examined for these descriptions were usually very small and/or contained a single sex. For example, of the 20 junior synonyms cited above, five of the original descriptions were based on a single female louse, three on two females, one on a single male and female pair, and four were based on three to eight females only. When measurements and setal counts were provided, they fell within the range known for the proposed senior synonym or were not significantly outside this range. We believe that ignorance or misunderstanding of the inherent intraspecific variation in *Menacanthus* morphology often afforded the describer a false sense of justification for publishing a new taxon.

Several descriptions included simple but adequate illustrations. Only a few had detailed figures. When line drawings were provided, they were usually of isolated features such as the head, an antenna, an individual ventral head spine, a single row of setae, a thoracic or abdominal sclerite, or sometimes the female terminalia or male genitalia. Some authors resorted to publishing photographs which, at best, gave a general impression of the louse shape. With very few exceptions, these photographs did not provide critically important details of chaetotaxy or morphology.

Our approach in determining the status of these names has been to compare the published data with the descriptions and available specimens of the valid *Menacanthus* species closest to them. Future workers should be discouraged from publishing new taxa before becoming familiar with all described taxa of a particular genus, and if they decide to describe, they should be certain to provide adequate illustrative and text details so that they can convincingly justify their actions. To do otherwise only serves to confuse the taxonomy of chewing lice.

#### NEW HOST RECORDS

In the following list, hosts indicated with \*\* are included because they are the type hosts of the new synonyms given above. All other records have been verified by study of the lice by the authors. Entries are alphabetical by louse species, host family, and host genus and species within a family.

##### *Menacanthus alaudae* (Schrank, 1776)

*Amphispiza bilineata* (Cassin) [Emberizidae]: 1 male, USA: Utah, Tooele Co., near Dugway Valley, S. end Simpson Buttes, 12 May 1953, coll. R. D. Porter (KCEM); 2 females, USA: Utah, Tooele Co., S. Cedar Mt., 26 Jul. 1962 (KCEM).

\*\**Acanthis cannabina* (Linnaeus) [Fringillidae].

\*\**Acanthis flavirostris* (Linnaeus) [Fringillidae].

##### *Menacanthus aurocapillus* Carriker, 1958

*Vermivora crissalis* (Salvin & Godman) [Parulidae]: 1 female, México: Coahuila, Las Vacas, 14 Jun. 1958, coll. C. A. Ely (KCEM).

##### *Menacanthus camelinus* (Nitzsch (in Giebel), 1874)

*Lanius sphenocercus* Cabanis [Laniidae]: 1 male, Korea: Kyonggi-do, Seoul, 6 Nov. 1960, coll. C. Fennell (KCEM).

##### *Menacanthus chrysophaeus* (Kellogg, 1896)

\*\**Emberiza spodocephala* Pallas [Emberizidae].

*Passerculus sandwichensis* (Gmelin) [Emberizidae]: 1 female, USA: Utah, Tooele Co., near Dugway Valley, Sewerline, 26 May 1953 (KCEM).

##### *Menacanthus curuccae* (Schrank, 1776)

\*\**Acrocephalus aedon* (Pallas) [Sylviidae].

\*\**Sylvia nisoria* (Bechstein) [Sylviidae].

##### *Menacanthus distinctus* (Kellogg & Chapman, 1899)

*Rhytipterna simplex* (Lichtenstein) [Tyrannidae]: 4 males, 4 females, Venezuela: Bolívar, Hato San José, 6 Apr. 1967 (DEUM; KCEM; USNM).

##### *Menacanthus eurysternus* (Burmeister, 1838)

*Phainopepla nitens* (Swainson) [Bombycillidae]: 8 females, México: México City, 1930 (DEUM; KCEM; USNM).

*Paramythia montium* DeVis [Dicaeidae]: 2 males, 2 females, Papua: South Highlands District, Mt. Giluwe, 14 Feb. 1973 (KCEM).

*Emberiza tahapisi* A Smith [Emberizidae]: 1 female, Mozambique: Zumbo, 27 Aug. 1964 (KCEM).

\*\**Carduelis chloris* (Linnaeus) [Fringillidae].

*Dendronanthus indicus* (Gmelin) [Motacillidae]: 1 female, Thailand: Wat Phai Lom, 30 Dec. 1969 (KCEM).

*Aethopyga gouldiae* (Vigors) [Nectariniidae]: 1 female, Thailand: Cheingmai, Doi Pha Hom Pok, 28 Oct. 1965 (KCEM).

*Nectarinia calcostetha* Jardine [Nectariniidae], 1 male, 1 female, Malaya: Panjang, Rantau, 1 Dec. 1961 (USNM).

*Nectarinia chalybea* (Linnaeus) [Nectariniidae], 1 male, 1 female, Mozambique: Fingoe, 10 Sep. 1964, coll. A. L. Moore (USNM).

\*\**Prunella modularis* (Linnaeus) [Prunellidae].

*Pycnonotus finlaysoni* Strickland [Pycnonotidae]: 1 female, Thailand: Phu Nam Tok, 21 km ENE of Saraburi, 30 Jul. 1965 (KCEM).

*Pycnonotus sinensis* (Gmelin) [Pycnonotidae]: 1 female, Formosa: Wu-sheh, 27 Oct. 1961 (KCEM); 1 female, Hong Kong: Mong Tseng, 16 Mar. 1966 (KCEM).

*Scytalopus unicolor* Salvin [Rhinocryptidae]: 3 females, Colombia: Cauca, Malvara, 26 Jan. 1956, coll. M. A. Carriker, Jr. (USNM).

\*\**Tichodroma muraria* (Linnaeus) [Sittidae].

*Orthotomus sericeus* Temminck [Sylviidae]: 3 females, Malaya: Panjang, 19 Oct. 1961 (USNM).

*Prinia subflava* (Gmelin) [Sylviidae]: 1 female, Taiwan, 18 Jan. 1989, coll. W. Chyi (DEUM).

\*\**Zoothera dauma* Latham [Sylviidae].

*Malacocincla abbotti* (Blyth) [Timaliidae] (Blyth): 1 female, Thailand: Phu Nam Tok, 21 km ENE of Saraburi, 30 Jul. 1965 (KCEM).

*Turdus cardis* Temminck [Turdidae]: 3 females, Hong Kong: Parkfulum, 31 Jan. 1966 (KCEM).

\*\**Turdus dissimilis* Blyth [Turdidae].

*Turdus grayi* Bonaparte [Turdidae]: 2 males, 2 females, Costa Rica: San José, Ciudad

Universitaria, 24 Aug. 1984, coll. M. A. Marín (KCEM); 1 male, 1 female, México: Hidalgo, Metztiatlán, 5 Dec. 1985, coll. A. R. Phillips (KCEM).

*Turdus plebejus* Cabanis [Turdidae]: 1 female, Costa Rica: San José, Madre Selva, 6 Apr. 1986, coll. M. A. Marín (KCEM).

\*\**Turdus ruficollis* Pallas [Turdidae].

\*\**Turdus viscivorus* Linnaeus [Turdidae].

*Menacanthus gonophaeus* (Burmeister, 1838)

*Corvus cryptoleucus* Couch [Corvidae]: 1 male, 1 female, USA: New Mexico, Roosevelt Co., 19 Oct. 1979, coll. W. Butler & D. Hudson (KCEM); 1 female, same locality, 22 Oct. 1979 (KCEM).

*Menacanthus nogoma* Uchida, 1926

*Tarsiger chrysaeus* (Hodgson) [Turdidae]: 1 male, Formosa: Alishan, 11 Feb. 1962 (USNM).

*Menacanthus orioli* Blagoveshchensky, 1951

*Dryoscopus cubla* (Shaw) [Laniidae]: 1 male, 1 female, Mozambique: Fingoe, 9 Sep. 1964, coll. A. L. Moore (KCEM).

*Menacanthus pusillus* (Nitzsch, 1866)

\*\**Anthus campestris* (Linnaeus) [Motacillidae].

*Menacanthus sturnellae* Price, 1977

*Bombycilla cedrorum* Vieillot [Bombycillidae]: 1 female, USA: Mississippi, State College, 14 May 1936, coll. E. W. Stafford (KCEM).

*Sturnella loyca* (Molina) [Icteridae]: 1 male, 1 female, Chile: Coquimbo, Punitaqui, Huilmo, 24 Jun. 1981, coll. M. A. Marín (KCEM).

*Menacanthus takayamai* Uchida, 1926

\*\**Locustella luscinioides* (Savi) [Sylviidae].

*Phylloscopus affinis* (Tickell) [Sylviidae]: 5 females, Thailand: Chieng Mai, Hod, Ban Bo Kao, 29 Jan. 1962, coll. K. Thonglongya (KCEM).

*Phylloscopus fuscatus* (Blyth) [Sylviidae]: 1 female, Thailand: Chieng Rai, Chieng Saen, 25 Jan. 1965, coll. H. E. McClure (KCEM).

#### OTHER MENACANTHUS NAMES

For the same reasons given by Price (1977: 218), we still regard as *nomina dubia* the following four species:

*Menacanthus crateropus* (Bedford, 1920)

*Menacanthus hilensis* (Kellogg & Chapman, 1902)

*Menacanthus mamola* Ansari, 1955<sup>1</sup>

*Menacanthus remizae* Blagoveshchensky, 1940

Although we are uncertain of their true status on the basis of descriptions and specimens available to us, we still recognise as valid the following five species:

*Menacanthus affinis* Fedorenko, 1977 (in Fedorenko & Bel'skaya, 1977)

*Menacanthus brelihi* Balát, 1981

*Menacanthus leistidis* Cicchino, 1984

*Menacanthus stubbei* Mey, 1982

*Menacanthus eisenachensis* Balát, 1981<sup>2</sup>

To the best of our knowledge, there is only one further valid species of *Menacanthus* described in or after 1977 from passeriform birds, i.e. *M. dennisi* Price & Emerson, 1988.

#### Footnotes

1. Ansari described *M. mamola* three times as a 'new species', in 1955, 1956 and 1957. Price (1977: 218) gave the reference to the 1957 publication because at the time he had been unable to obtain a copy of the 1955 paper. The 1957 description is much more detailed, including some illustrations.

2. The name *Menacanthus eisenachensis* was first mentioned by Mey (1977: 404) but the species it represented was not described. Therefore it became a *nomen nudum* until Balát (1981: 274–275, pl. I, fig. 5) inadvertently gave sufficient information for *M. eisenachensis* to become a valid name under the International Code of Zoological Nomenclature (I.C.Z.N., 1985). Accordingly, the correct citation for *Menacanthus eisenachensis* is 'Balát, 1981'.

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