

SCIENTIFIC NOTE

A CHECKLIST OF THE MOSQUITOES OF IDAHO AND TWO NEW STATE RECORDS: *OCHLEROTATUS DECTICUS* AND *OCHLEROTATUS EUEDES*

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ABSTRACT. This checklist of the mosquitoes of Idaho updates the list of Brothers (1971), adding 5 species. From the literature, 3, *Ochlerotatus mercurator*, *Ochlerotatus nevadensis*, and *Ochlerotatus punctor*, are added and 1, *Ochlerotatus stimulans*, is deleted. We are reporting 2 new state records, *Ochlerotatus decticus* and *Ochlerotatus euedes*, and extending their ranges westward in the United States. One new genus and 2 new subgenera are also added.

KEY WORDS Mosquitoes, Idaho, new mosquito records

Brothers (1971) published the only checklist of Idaho mosquito species, listing 47 species in 5 genera and 10 subgenera. We are recording 51 species in 6 genera and 11 subgenera. The subgenus *Ochlerotatus* Lynch Arribalzaga was raised to generic rank by Reinert (2000b), affecting the names of 32 Idaho species (see Table 1). The subgenus *Finlaya* Theobald was removed from New World species by Zavortink (1972), who assigned *Ochlerotatus hendersoni* (Cockerell) to subgenus *Protomacleaya* Theobald. Furthermore, *Ochlerotatus provocans* (Walker) was reassigned to subgenus *Rusticoides* Shevchenko and Prudkina by Reinert (2000a).

Five species are being added to and 1 deleted from the original checklist (Table 1). Additions are *Ochlerotatus* (*Ochlerotatus*) *punctor* (Kirby), recorded from Idaho by Gjullin and Eddy (1972); *Ochlerotatus* (*Ochlerotatus*) *nevadensis* (Chapman and Barr), listed from the state by Ellis and Brust (1973); *Ochlerotatus* (*Ochlerotatus*) *mercurator* (Dyar), given by Wood (1977), a replacement for *Ochlerotatus stimulans* (Walker), deleted from western USA; and 2 new state records, *Ochlerotatus* (*Ochlerotatus*) *decticus* Howard, Dyar, and Knab and *Ochlerotatus* (*Ochlerotatus*) *euedes* Howard, Dyar, and Knab. The farthest west in the United States *Oc. decticus* had been reported was Minnesota (Barr and Balduf 1965). However, *Oc. euedes* has been collected in Yellowstone National Park (Nielsen 1982). Now the ranges of *Oc. decticus* and *Oc. euedes* have been extended westward by more than 1449 and 490 km, respectively. Wood et al. (1979) have reported both of them from western Canada (Alberta) so it is not surprising for them to be found in Idaho.

Ochlerotatus decticus new state record

Three *Oc. decticus* females, reared from larvae by D. R. Brothers, were collected on VI-13-2002 in Bear Valley, Valley County, within the Boise National Forest. The valley is subalpine, with 2,331 hectares between the elevations of 1,937 and 1,951 m, and has 3 large alpine meadows. The Bear Valley Creek flows through the valley, with snow melt as its main water source. Numerous small tributaries feed the creek from the surrounding high areas forested with lodgepole pines (*Pinus contorta*). At the time of the collection, snow had completely melted and the spring runoff was receding. Immature *Oc. decticus* were collected at a site along the bank of a minor tributary bordering the west side of Poker Meadows Campground. Sedge (*Carex* sp.) was the predominant plant in the breeding site with willows (*Salix* sp.) occurring sparsely. Larvae and pupae were collected in an open pool, approximately 2 m from the stream. The water was clear, about 8 cm deep and in full sun.

The adult females are recognized by the even submedian stripes of dark brown scales on the scutum, abdominal terga without transverse bands, and tarsi all dark (Darsie and Ward 1981). Voucher specimens are in the collection of the Florida Medical Entomology Laboratory.

Ochlerotatus euedes new state record

Seven females and 2 males of *Oc. euedes*, reared from larvae, were collected at the same site as *Oc. decticus* on VI-13-2002 by D. R. Brothers. Their identification was based on descriptions of Wood et al. (1979), Barr (1958), and Rueger (1958) (the latter 2 as *Oc. barri* Rueger). Wood (1977) placed *Oc. barri* as a junior synonym of *Oc. euedes*.

The adult females are characterized by the proboscis, femora, tibiae, and tarsomere 1 with numerous scattered pale scales and broad pale bands

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Table 1. Checklist of the mosquitoes of Idaho.

Anopheles Meigen

Anopheles (Anopheles) earlei Vargas
An. (Ano.) freeborni Aitken
An. (Ano.) punctipennis (Say)

Aedes Meigen

Aedes (Aedes) cinereus Meigen
Ae. (Aedimorphus) vexans (Meigen)

Ochlerotatus Lynch Arribalzaga

Ochlerotatus (Ochlerotatus) aboriginis (Dyar)

Oc. (Och.) campestris (Dyar and Knab)
Oc. (Och.) canadensis canadensis (Theobald)
Oc. (Och.) cataphylla (Dyar)
Oc. (Och.) communis (DeGeer)
Oc. (Och.) decticus (Howard, Dyar, and Knab)
Oc. (Och.) dorsalis (Meigen)
Oc. (Och.) euedes (Howard, Dyar, and Knab)
Oc. (Och.) excrucians (Walker)
Oc. (Och.) fitchii (Felt and Young)
Oc. (Och.) flavescens (Muller)
Oc. (Och.) hexodontus (Dyar)
Oc. (Och.) impiger (Walker)
Oc. (Och.) implicatus (Vockeroth)
Oc. (Och.) increpitus (Dyar)
Oc. (Och.) intrudens (Dyar)
Oc. (Och.) melanimon (Dyar)
Oc. (Och.) mercurator (Dyar)
Oc. (Och.) nevadensis (Chapman and Barr)
Oc. (Och.) nigromaculis (Ludlow)
Oc. (Och.) niphadopsis (Dyar and Knab)
Oc. (Och.) pionips (Dyar)
Oc. (Och.) pullatus (Coquillett)
Oc. (Och.) punctor (Kirby)
Oc. (Och.) schizopinax (Dyar)
Oc. (Och.) sierrensis (Ludlow)
Oc. (Och.) spencerii idahoensis (Theobald)
Oc. (Och.) sticticus (Meigen)
Oc. (Och.) trivittatus (Coquillett)
Oc. (Och.) ventrovittis (Dyar)
Oc. (Protomacleaya) hendersoni (Cockerell)
Oc. (Rusticoides) provocans (Walker)

Culex Linnaeus

Culex (Culex) erythrorhax Dyar
Cx. (Cux.) pipiens Linnaeus
Cx. (Cux.) restuans Theobald
Cx. (Cux.) salinarius Coquillett
Cx. (Cux.) tarsalis Coquillett
Cx. (Neoculex) boharti Brookman and Reeves
Cx. (Ncx.) territans Walker

Culiseta Felt

Culiseta (Culicella) minnesotae Barr
Cs. (Cuc.) morsitans (Theobald)
Cs. (Culiseta) alaskaensis (Ludlow)
Cs. (Cus.) impatiens (Walker)
Cs. (Cus.) incidens (Thomson)
Cs. (Cus.) inornata (Williston)

Coquillettidia Dyar

Cq. (Coquillettidia) perturbans (Walker)

on hindtarsomeres 1–5. Minor differences from the descriptions of Wood and Rueger were noted in the Idaho specimens. For instance, scales on the antepronota were said to be brown by Wood and golden by Rueger, whereas Idaho females had almost white, flattened scales. Also, the basal pale bands on abdominal terga were said to be narrow by Wood but were broad in the Idaho females, and Rueger described a narrow band of white scales on the apical margin of most abdominal terga whereas the Idaho females had narrow apical pale bands only on terga V–VII. Voucher specimens are in the collection of the Florida Medical Entomology Laboratory.

Other mosquito larvae collected with the above 2 taxa were *Aedes cinereus* Meigen, *Ochlerotatus excrucians* (Walker), and *Ochlerotatus fitchii* (Felt and Young).

We are indebted to G. F. O'Meara and J. R. Rey for reviewing the manuscript. This is University of Florida Agricultural Experiment Station Journal Series No. R-09055.

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