MEASUREMENTS OF TOTAL FRESH MASS FOR SOME SPECIES OF ODONATA FROM KANSAS AND MISSOURI, UNITED STATES

The author has previously presented mass data for some Odonata collected in Kansas and Nebraska in the United States (R.J. BECKEMEYER, 1998, *Notul. odonatol.* 5: 35-37). In this paper a number of additional species are reported upon. Collections were made during 1999 and 2000, mostly in Kansas, but with several specimens also taken in Missouri. Both states are located in the central plains of the United States.

Measurements were made using a Scientech SA-120 electronic analytical balance, to an accuracy of 0.1 mg. Specimens were kept in glassine envelopes stored in zip-lock plastic bags on ice in a cooler until they could be weighed. Measurements were made of live insects within several hours of their capture. All specimens were mature adults.

Data are given as: n = number of specimens; m = average mass (mg) ± standard deviation (mg); R = range of masses = minimum (mg) – maximum (mg).

Lestidae

Lestes disjunctus australis ♀: n = 5; m = 90.2 ± 9.8; R = 83.6 – 107.3

L. disjunctus australis ♂: n = 3; m = 59.1 ± 7.5; R = 50.5 – 64.1

Coenagrionidae

Argia apicalis ♀: n = 5; m = 41.3 ± 7.7; R = 30.3 – 51.7

A. apicalis ♂: n = 16; m = 32.1 ± 4.1; R = 20.8 – 36.5

Enallagma basidens ♂: n = 2; m = 14.6; R = 13.7 – 15.4

E. civile ♀: n = 4; m = 40.7 ± 14.6; R = 22.5 – 57.7

E. civile ♂: n = 10; m = 28.4 ± 7.1; R = 20.6 – 44.8

E. exsulans ♂: n = 1; m = 17.0

E. vesperum ♂: n = 1; m = 19.4

Ischnura posita ♂: n = 3; m = 12.1 ± 0.6; R = 11.7 – 12.7

I. verticalis ♀: n = 5; m = 28.1 ± 9.0; R = 16.4 – 39.9

I. verticalis ♂: n = 4; m = 15.1 ± 3.2; R = 11.8 – 18.8

Aeshnidae

Anax junius ♂: n = 2; m = 1050.3; R = 947.1 – 1153.4

Gomphidae

Dromogomphus spinosus ♂: n = 1; m = 444.3

Gomphus externus ♀: n = 2; m = 505.8 ± 36.1; R = 480.2 – 531.3

G. externus ♂: n = 4; m = 363.3 ± 49.4; R = 314.7 – 409.1

G. militaris ♀: n = 1; m = 412.9

G. militaris ♂: n = 1; m = 387.8

Corduliidae: Macromiinae

Macromia illinoiensis ♂: n = 13; m = 645.9 ± 35.5; R = 580.1 – 693.0

M. pacifica ♂: n = 3; m = 580.3 ± 64.2; R = 513.1 – 640.9

Corduliidae: Corduliinae

Epitheca princeps ♂: n = 2; m = 415.0; R = 353.3 – 476.7

Libellulidae

Celithemis eponina ♂: n = 1; m = 172.9

Dythemis fugax ♀: n = 5; m = 333.5 ± 30.7; R = 298.1 – 367.1

D. fugax ♂: n = 2; m = 275.1; R = 240.1 – 310.0

Erythemis simplicicollis ♀: n = 2; m = 251.6 ± 122.5; R = 164.9 – 338.2

E. simplicicollis ♂: n = 1; m = 251.3

Erythrodiplax umbrata ♀: n = 1; m = 307.9

Libellula luctuosa ♂: n = 2; m = 530.9; R = 415.4 – 646.4

L. pulchella ♀: n = 1; m = 663.1

L. pulchella ♂: n = 1; m = 539.7

Pachydiplax longipennis ♂: n = 1; m = 194.7

Pantala flavescens ♀: n = 1; m = 219.4

P. flavescens ♂: n = 1; m = 310.0

Perithemis tenera ♀: n = 1; m = 72.6

Plathemis lydia ♀: n = 1; m = 408.3

Sympetrum cor.uptum ♂: n = 1; m = 251.1

Tramea lacerata ♂: n = 2; m = 322.2; R = 254.0 – 390.4

T. onusta ♂: n = 1; m = 172.8

R.J. B e c k e m e y e r, 957 Perry Ave., Wichita, KS 67203-3141, United States