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## TWO NEW SYNONYMIES IN NEARCTIC *EUCOSMA* (TORTRICIDAE: OLETHREUTINAE)

**Additional key words:** *Eucosma wandana*, *E. uta*, *E. ustulatana*, Kentucky, genitalia.

In the course of identifying *Eucosma* specimens captured recently in Kentucky, we reached the conclusion that *E. wandana* Kearfott, *E. uta* Clarke, and *E. ustulatana* Blanchard & Knudson are one and the same morphospecies. Males captured at the same Kentucky locality on the same date match male holotypes of all three taxa. All specimens we examined that had been or could be assigned to these taxa have similar underlying forewing patterns varying in the proportion of dark brown to light orange brown. On average, males ( $n = 12$ ) are darker brown than females ( $n = 44$ ).

*Eucosma wandana* was described from one male by W. D. Kearfott in 1907, but we also have seen a female with a "type" label not mentioned in the original description; *E. uta* was described from two males and one female by J. F. G. Clarke in 1953; and *E. ustulatana* was described from two males by A. Blanchard and E. C. Knudson in 1983. None of these short type series reveals the full range of color variation we observed in longer series. Moreover, Clarke seems to have overlooked *E. wandana* when he described *E. uta*; for differentiation, he used *E. atomosana* (Walsingham), a western species (Heinrich 1923). In describing *E. ustulatana*, Blanchard and Knudson used *E. wandana* (as *E. eumaea* Meyrick) for comparison, but the diagnostic differences cited by them—smoother, more evenly convex anterior valval margin in *E. ustulatana*—can be ascribed to individual variation. No differences are discernible among holotype genitalia of *E. wandana* (as *E. eumaea*) (Heinrich 1923), *E. uta* (Clarke 1953), or *E. ustulatana* (Blanchard & Knudson 1983).

We summarize as follows:

### *Eucosma wandana* Kearfott (Figs. 1–3)

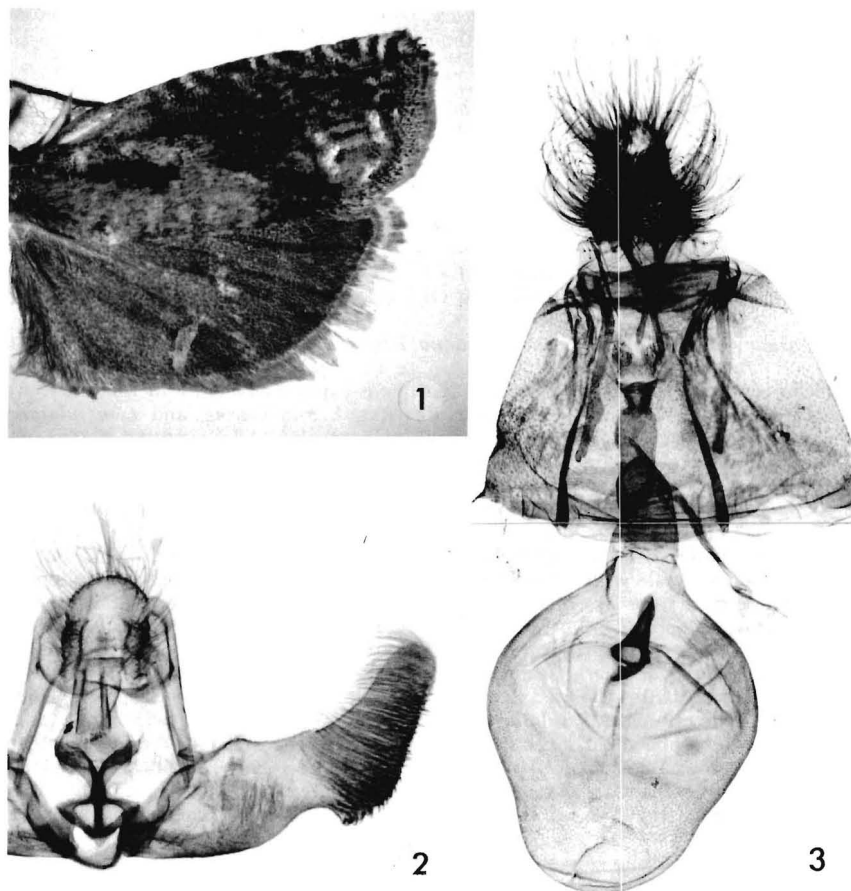
*Eucosma wandana* Kearfott (1907) (holotype: male, Cincinnati, Ohio, 25 July [not August as in original description] 1904, A. F. Braun, in American Museum of Natural History [AMNH], New York, N.Y., wings illustrated in Fig. 1 here); Klots (1942).

*E. eumaea* E. Meyrick (1912); Heinrich (1923) (holotype genitalia photo-illustrated); Klots (1942) (invalid replacement name).

*E. uta* Clarke (1953) (holotype: male, Putnam Co., Illinois, 10 July 1939, M. O. Glenn, in National Museum of Natural History [NMNH], Washington, D.C.; male and female genitalia sketch-illustrated, wings of paratype photo-illustrated); Godfrey, et al. (1987) wing of female photo-illustrated. **New Synonymy.**

*E. ustulatana* Blanchard & Knudson (1983) (holotype: male, Brenham, Washington Co., Texas, 4 June 1979, E. C. Knudson, genitalia prep. WEM 36924, in NMNH, wings photo-illustrated, male genitalia of paratype photo-illustrated). **New Synonymy.**

*Eucosma wandana* is probably multivoltine. Capture dates range from 4 June to 15 September ( $n = 53$ ). The known distribution is Kentucky, Ohio, Illinois, Missouri, Arkansas, Kansas, Georgia, Florida, and Texas. Forewing length of males ranges from 7.5 to 8.5 mm ( $n = 12$ ); of females, 7.0 to 9.25 mm ( $n = 44$ ). *Eucosma wandana* is one of at least 11 eastern species of *Eucosma* having ventral extensions of female papillae anales (Fig.



FIGS. 1-3. *Eucosma wandana*. 1, Wings of holotype. 2, Genitalia of male. 3, Genitalia of female.

3), an accessory whose function is not yet known (Miller 1987). The larval food plant is unknown.

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**Material examined.** We examined specimens as follows, labeling all except primary types "Voucher, Gibson & Miller 1992": ARKANSAS: Devil's Den St. Pk., Washington Co., one male, 6.VII.66; one female, 6.VII.66 (genit. prep. USNM 70317); one female, 26.VI.66; one female, 3.VII.66 (genit. prep. USNM 70316) all R. W. Hodges; Washington Co., "type", female. KANSAS: Pittsburg, E. L. Todd, one female, 28.VI.54; one female, 2.VII.54. GEORGIA: Atlanta, P. W. Fattig, one male, 31.VII.41. TEXAS: *E. ustulatana* holotype; Dallas, "714", Fernald collection, one female (all foregoing in NMNH). OHIO: *E. wandana* holotype (in AMNH). KENTUCKY: Campbell Co., Jolly Co. Pk., three females, 15.VII.82 (female genit. prep. LDG 134) (Fig. 3); Gallatin Co., Markland Dam, two females, two males, 3.VIII.88 (male genit. prep. LDG 048) (Fig. 2); Boone Co., Big Bone Lick St. Pk., one female, 7.VII.81; one female, 27.VII.89; Owsley Co., near Boone-

ville, two females, two males, 22.VI.84 (male genit. prep. LDG 047); Bullitt Co., near Shepherdsville, one female, 8.VII.88 (all L. D. Gibson, in L. D. Gibson collection). MISSOURI: Cape Girardeau, one female, 25.VII.78; Independence, one female, 30.VI.76; Clay Co., Coolie Lk., one female, 18.VII.68; one female, 22.VII.72 (all J. R. Heitzman, in J. R. Heitzman collection). ILLINOIS: *E. uta* holotype; Oconee, two females, 8–15.VII; one female 1–7.VII (female genit. prep. USNM 70670); Decatur, one female, 8–15.VII; Putnam Co., M. O. Glenn, one female, 30.VII.74; one male, 18.VII.73; one female, 3.VIII.65; one male, 25.VII.74 (male genit. prep. WEM 176923); one female, 13.VIII.43 (female genit. prep. USNM 70320) (*E. uta* paratype); (all in NMNH); Putnam Co., M. O. Glenn, one male, 23.VI.56, "5057"; one male, date missing, "5157"; one female, 5.VII.53; one female, 24.VII.68; one female, 11.VIII.74; one female, 15.VII.64; one female, 5.VIII.61 (abdomen missing); one female, 28.VII.64; one female, 2.VII.56; one female, 15.IX.54; one female, 28.VII.56; one female, 21.VII.56; one female, 23.VII.73; one female, 10.VII.39; one female, [illegible].VII.65; one female, 17.VII.64; one female, 29.VI.64; one female, 5.VIII.47 (*E. uta* paratype) (all in Illinois Natural History Survey Collection). FLORIDA: Liberty Co., Torreya St. Pk., one female, 7.VII.88 (female genit. prep. LDG 131) (D. Profant, in D. Profant collection).

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ADDITIONAL DATA ON THE GEOGRAPHICAL DISTRIBUTION AND  
ADULT ACTIVITY OF THE DIURNAL, MIMETIC PLUME MOTH,  
*OIDAEMATOPHORUS CHAMELAI* (PTEROPHORIDAE)

**Additional key words:** Costa Rica, Mexico, *Croton*, *Cordia*.

An extraordinary, black pterophorid with enlarged scale tufts on the hind legs was described from Mexico by Gielis (1992), but neither its strikingly wasp-like appearance