

THE AUTHORSHIP OF *POLITES MYSTIC*, EDWARDS OR
SCUDDER? (HESPERIIDAE)F. MARTIN BROWN¹

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Both W. H. Edwards and S. H. Scudder published the name *mystic* for the same skipper within months of each other. The problem has been, who published the name first? Edwards (1884: 312) noted "501. *Mystic*, Scud., Pr. Ess. Ins., 3, 172, 1862; Edw., Pr. E. Soc. Phil., 2, 15, pl. 1, 1863; . . ." Scudder (1889, 2: 1705) wrote "*Hesperia mystic* Edw., Scudd., Proc. Ess. Inst., iii:172-173 (1863); Proc. entom. soc. Philad., ii:15-16, pl. 1, figs. 3-4 (1863); . . ." It appears that each of these gentlemen bowed to the other in respect to the authorship of the name *mystic*.

Turning to secondary sources I find the following references to the authorship of the name: Kirby (1871: 599) assigns the name to Scudder; Strecker (1878: 165) names Edwards as the author; Skinner (1891: 16) makes Scudder the author. More recent standard checklists, by Barnes and McDunnough, Barnes and Benjamin, McDunnough and dos Passos all credit the name Scudder, apparently following Skinner. Lindsey, Bell and Williams (1931: 103) credit the name to Scudder. With this preponderance of apparent evidence it seemed the most redundant routine to check the actual publication date of Scudder's article.

Recently, while in Salem, Massachusetts, I had the opportunity to visit the Essex Institute and meet Mr. David R. Proper, the librarian. He very kindly allowed me to start a search of the primary documents in his keeping to establish the publication dates for both the Proceedings and the Bulletin of the Essex Institute. I soon found that mast-head dates and actual publication dates for these journals frequently differed by appreciable time. At the time that I had to leave Salem I had not reached any conclusion relative to volume 3 of the Proceedings in which Scudder's use of *mystic* first was published. Mr. Proper continued the search after I had left and found the evidence that is needed to bracket the publication of that volume into a period of three months.

The evidence is this: A printed notice of a Field Meeting at Salem on August 20, 1863, mentions as available volumes 1 and 2 of the Proceedings as published in parts at irregular intervals. No mention of any part of volume 3 is made. Volume 3 includes a report of a meeting held on December 28, 1863. The first part of volume 4 was released a day or so earlier than April 26, 1864 and was for the quarter January-March, 1864.

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There is no evidence that volume 3 had been issued in parts. Thus it appears that volume 3 was issued after December 23, 1863, and before April 26, 1864. If, perchance, volume 3 was issued in parts, no part had been issued by August 20, 1863.

A study of the structure of volume 3 strongly supports the belief that it was issued all at one time and not in parts as had been the earlier and later volumes. Volume 3 commences with the minutes for the Annual Meeting held on May 9, 1860, and continues through those for the meeting of December 28, 1863. There are two references to publication of the Proceedings in the minutes of meetings recorded in volume 3. At the Annual Meeting held May 8, 1861, the Publications Committee reported releasing volume 2, part 2, in September 1860. The Publications Committee report presented on May 13, 1863, noticed release of the final (third) part of volume 2 during the preceding year. From dates of receipt of this part at other institutions I suspect that it was released in September or October, 1862.

Scudder's paper, "A List of the Butterflies of New England," was presented at the meeting of the Essex Institute held on March 10, 1862. It is printed in the extended minutes of that meeting. In this paper Scudder named seventeen species of butterflies from New England. All of these currently are quoted as having been published in 1862 or 1863. The correct date for each of these is between January 1, and April 26, 1864. It seems improbable that the volume was published within the last three days of 1863. Therefore I believe that the date used on the title page of volume 3, 1864, is the true year of publication.

The date of Edwards' use of the name *mystic* in print has been established (Brown, 1964: 213). If the preprint date is accepted, as has been informally approved by the Secretary of the International Commission on Zoological Nomenclature (Brown, 1964: 210), then the date to be used is April, 1863. If this date, in the future, is rejected, then the date to be used is July 29, 1863. Either of these dates has at least five months priority over the publication date for Scudder's use of *mystic*.

Scudder's use of the name in his article clearly acknowledges Edward's prior use of the name in manuscript. In fact, at the time that Scudder presented his paper, March 10, 1862, the name was in manuscript and not published. However, mere oral or manuscript presentation of a name does not have any standing in nomenclature. Thus *mystic* must be credited to W. H. Edwards.

The seventeen new names, the date of publication of which is changed from 1862 or 1863 to 1864, are listed below with notes concerning their current standing.

- 12.¹ *Polyommatus porsenna* is a subspecies of *Feniseca tarquinius* (Fabricius). dos Passos's date, 1863. No effect.
32. *Argynnis montinus* is a subspecies of *Boloria titania* (Esper). dos Passos's date, 1862. No effect.
35. *Melitaea oenone* is a synonym of *Melitaea nycteis nycteis* Doubleday. dos Passos's date, 1863. No effect.
36. *Melitaea harrisii*. dos Passos's date, 1862. No effect.
58. *Nisoniades persius* now is in *Erynnis*. dos Passos's date, 1863. No effect.
65. *Hesperia massasoit* now is in *Poanes*. dos Passos's date, 1863. No effect.
67. *Hesperia pocahontas* is a synonym (female form) of *Poanes hobomok* (Harris). dos Passos's date, 1863. No effect.
69. *Hesperia mystic*, now is placed in *Polites*. dos Passos's date, 1863. Change of authorship to W. H. Edwards from S. H. Scudder is required.
70. *Hesperia sassacus* Harris, in line 9 of the original description change "*H. incerta*" to "*H. mystic*." (See Errata, p. [302] of the original publication.)
71. *Hesperia wingina* is a synonym of *Polites vibex vibex* (Geyer). dos Passos's date, 1863. No effect.
73. *Hesperia egeremet* was proposed as a new name for *otho* Boisduval and LeConte [1834] (*nec Papilio otho* Smith 1797). dos Passos's date, 1863. No effect.
74. *Hesperia manataaqua* was proposed as a new name for *cernes* Harris, 1862 (*nec cernes* Boisduval and LeConte, [1834]), and now considered a synonym of *Polites origines* (Fabricius). dos Passos's date, 1863. No effect.
76. *Hesperia oneko* is a synonym of *Amblyscirtes aesculapius* (Fabricius). dos Passos's date, 1863. No effect.
77. *Hesperia hegon* is listed as a synonym of *Amblyscirtes samoset* (Scudder). dos Passos's date, 1863. No effect.
78. *Hesperia samoset* now is placed in *Amblyscirtes*. dos Passos's date, 1863. The name *hegon*, which has line priority over *samoset*, was selected by Kirby (1871: 613) to be the name of this taxon. As first revisor he had the option of using either name, *hegon* which was applied by Scudder to the female or *samoset* which Scudder used for the male of the same taxon. This preceded Scudder's decision to assign the name *samoset* to the taxon in 1872 (p. 54) which was the basis for Evans's (1955: 389) reversal of custom followed by dos Passos. Edwards' name *nemoris* for the same taxon dates from April 1864 (Brown, 1964, p. 221) and thus is junior by a few months.
79. *Hesperia metea*. dos Passos's date, 1863. No effect.
80. *Hesperia monoco* is a synonym of *Lerema accius* (Smith). dos Passos's date, 1863. No effect.
81. *Hesperia panoquin* now is placed in *Panoquina*. dos Passos's date, 1863. No effect.

LITERATURE CITED

- BROWN, F. M., 1964. Correct dates for butterfly names described by William Henry Edwards in three entomological publications. Jour. New York Ent. Soc., 72: 209-223.
- EVANS, W. H., 1955. A catalogue of the American Hesperidae indicating the classification and nomenclature adopted in the British Museum (Natural History), Part IV. British Museum (N.H.), London, England.
- EDWARDS, W. H., 1884. List of the species of diurnal Lepidoptera of America north of Mexico. Houghton, Mifflin Co., Boston; 16 pp.
- KIRBY, W. F., 1871. A synonymic catalogue of diurnal Lepidoptera. J. Van Voorst, London; 690 pp.

¹ These are the numbers used by Scudder in his list.

- LINDSEY, A. W., E. L. BELL and R. C. WILLIAMS. 1931. The Hesperioidea of North America. Dennison University Bulletin, Jour. Sci. Laboratories, 26:1-142.
- SCUDDER, S. H., 1872. A systematic revision of some of the North American butterflies, with brief notes of those known to occur in Essex Co., Mass. Reports Peabody Acad. Sci., Salem, Mass. 4th Annual Report, 1871, pp. 24-92.
1889. Butterfly of the eastern United States and Canada. 3 vol. Cambridge, Massachusetts. Publ. by author.
- SKINNER, H., 1891. In: Smith, J. B., List of the Lepidoptera of Boreal America. Amer. Ent. Soc., Phila., Pa.; 124 pp.
- STRECKER, F. H., 1878. Butterflies and moths of North America, . . . B. F. Owen, Reading, Pa.; 283 pp.

FLUID RECYCLING IN AGATHYMUS ARYXNA (MEGATHYMIDAE)

On 2 October 1965, while observing large numbers of *Agathymus aryxna* (Dyar) drinking at a stream in Ramsey Canyon in the Huachuca Mountains of southeastern Arizona, I observed an unusual behavioral phenomenon. On at least six occasions a male *A. aryxna* was observed to alight on a dry rock, curl its abdomen anteroventrally, and emit a drop of fluid from the anus. The megathymid then proceeded to siphon the fluid from the rock surface with its proboscis. On some occasions the drop of fluid was placed directly on the posteroventrally directed proboscis and on other occasions the drop was smeared on the rock face as the insect moved backward to bring the proboscis in contact with the fluid. The frequency with which this behavior was observed suggests that perhaps this is not an uncommon behavioral pattern for this species.

Feeding at water appears to be a well-documented behavioral characteristic for several species of *Agathymus*.^{1,2} Roever reports "pumping" behavior of males but does not record recycling of the excreta. However, Roever (personal communication, 1965) reports that he has also observed the recycling behavior on occasion.

An analysis of the excreta might provide an explanation for the recycling behavior. Unfortunately, I did not obtain samples of the excreted fluid.

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¹ C. Brown & J. Creelman. 1935. Habits of *Megathymus stephensi* Skin. and notes on other *Megathymus* (Lepid.: Hesperidae). Ent. News, 46: 175-177.

² K. Roever. 1964. Bionomics of *Agathymus* (Megathymidae). Jour. Res. Lepid., 3: 103-120.