



Gnorimoschema Brackenridgiella (Busck, 1903), a Valid Species (Lepidoptera: Gelechiidae)

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**GNORIMOSCHEMA BRACKENRIDGIELLA (BUSCK, 1903), A VALID SPECIES
(LEPIDOPTERA: GELECHIIDAE)**

Additional key words: *Gelechia detersella*, Gelechiinae, North America, taxonomy, nomenclature.

“G.[*elechia*]? *detersella*” was described by James Brackenridge Clemens in 1860, with no indication of the type locality. Hodges (1986:36) suggested that unless otherwise stated, Clemens’ home and environs in Easton, Pennsylvania should be considered as the locality for his material. The type specimen of *detersella*, together with the rest of Clemens’ collection now reside in the Academy of Natural Sciences, Philadelphia (ANSP, type #7341).

Clemens’ original description reads as follows: “G.? *detersella*. Head and face grayish fuscous. Labial palpi pale yellowish-white, with two fuscous patches on the middle joint, a very narrow fuscous ring at the base of terminal joint, a broad one near the tip, with the extreme apex whitish. Antennae grayish fuscous, annulated with dark fuscous. Fore wings grayish, very profusely dusted with dark fuscous, with a dark fuscous spot on the disk; cilia ochreous gray. Hind wings pale ochreous-gray; cilia pale ochreous. Feet annulated with whitish.”

Clemens also sent two specimens from his original series to Henry Stainton in the Natural History Museum (BMNH), where they still reside. Acknowledging their receipt, Stainton (1872) expressed doubts about their identity and thought that they were affiliated with the European *Gelechia affinis* Haworth, 1828 (now in *Bryotropha*). He also realized that Clemens’ name *detersella* was preoccupied by *Gelechia detersella* Zeller, 1847, and was in need of a replacement name. This was later accomplished by Busck (1903a) who proposed the name *Gelechia brackenridgiella* as a replacement for *detersella* Clemens. At the time of his publication, Busck was unaware of the existence of Clemens’s material which was already in ANSP. He wrote: “... no types exist in this country [United States] of this species ... Co-types of this species should be examined in British Museum, where the two specimens sent to Stainton by Clemens in 1860 presumably are found” (1903a). But soon after, in a supplement to the same paper (Busck 1903b), he clarified: “A very unexpected source of information has come to light in the discovery of the types of the late Brackenridge Clemens, in the Academy of Natural Sciences in Philadelphia. These types had been given up as lost, but were found a short time ago in an old-fashioned box, which had been put away in some out-of-

the-way corner and forgotten. My delight in unearthing this gold mine for the student of American *Tineina* quite overshadowed my first very natural chagrin over the changes necessitated in my work”. Here, under the new combination “*Gnorimoschema brackenridgiella*”, Busck wrote: “The type of *Gelechia detersella*, Clemens’ No. 75, was found in good condition, though lacking the left wings. It proves the species to belong to the genus *Gnorimoschema* Busck, and is very close to but distinct from *scutellariella* Chambers.” He went on to describe the differences between *detersella* and *scutellariella*, and concluded, “The removal of this species to *Gnorimoschema* may make the change of specific name questionable, but for the present I shall retain the new name”.

Over the years, the name *brackenridgiella* was used as a valid name under *Gnorimoschema* (Smith 1903, Busck 1939), although Barnes and McDunnough (1917) and McDunnough (1939) listed *detersella* as the valid name and placed *brackenridgella* [sic] under it as a synonym. Forbes (1923) incorrectly identified a gall-making species on Aster from Magnolia, Massachusetts, as *Gnorimoschema brackenridgella* [sic] and compared it to several other gall-making species; these are a group of much larger moths with a completely different habitus.

In 1929 Meyrick examined and identified a series of 20 specimens collected by Herbert Simpson Parish from “Toronto, Muskoka, May–August” in the British Museum as *brackenridgella* [sic]. It seems that Meyrick’s concept of the *brackenridgiella* was based solely on Clemens’ short description of *detersella*, because there is no evidence that he ever saw Clemens’ specimens in the BMNH. At the time, Stainton’s world collection was maintained separately from the main world collection at the BMNH, and unless Meyrick specifically checked the former, he would have missed them. Meyrick re-described and transferred *brackenridgiella* (as well as *batanella* Busck) under *Phthorimaea*, stating “... I believe this to be *detersella* Clem[ens]; as it seems to be little known, and published descriptions are very imperfect, I redescribe it”.

Nearly 40 years later, after examining a male specimen from Parish’s series identified by Meyrick in BMNH, Povolný (1967) wrote, “The specimen of *Phthorimaea brackenridgella* [sic] is conspecific with



FIG. 1. Adults, labels and genitalia dissections of specimens of *Gelechia detersella* Clemens. **Top row:** Lectotype (ANSP), dissection RWH2940; **mid row:** Paralectotype specimen 2/2 (BMNH), dissection BMNH33489; **bottom row:** Paralectotype specimen 1/2 (BMNH) [= *Scrobipalpula henshawiella* (Busck), original misidentification by Clemens], dissection BMNH33488. The scale bar on genitalia images represents 100 μ m.

Scrobipalpa atriplicella (F.v.R.) which fact [sic] suggests the possible synonymy of the former". Povolný also never examined Clemens' specimens of *detersella* and his statement on the synonymy of *brackenridgiella* with *atriplicella* was solely based on one of Parish's specimens from Canada identified as such by Meyrick. Since then, Hodges (1983), Lee et al (2010) and Huemer & Karsholt (2010) have all followed Povolný in accepting *brackenridgiella* (= *detersella*) as a synonym of *Scrobipalpa atriplicella*.

The two specimens of *G. detersella* in the BMNH were at some later point moved into the main world collection, given additional labels to indicate their provenance and labeled as paralectotypes. This was perhaps accomplished by Brian Ridout, an assistant in the 1970s (K. Tuck, pers. comm.). These specimens are now in drawer M10-189 of BMNH main world collection of Gelechiidae under *S. atriplicella*.

As part of an ongoing study of the North American *Gnorimoschemini*, I borrowed the type and genitalia dissection of *G. detersella* from ANSP, as well as Clemens' two specimens in the BMNH. In order to verify Povolný's identification of Meyrick's *brackenridgiella* from Canada (on which the synonymy is based), I also borrowed a male specimen from Parish's series in BMNH. From the original 20, only 16 specimens remain today in BMNH, none of which bear an identification label by Povolný. It seems likely that Povolný kept part of the material loaned to him back in 1960s (Tuck, pers. comm.).

I dissolved, unrolled and remounted the male genitalia of the *detersella* type (Hodges prep. RWH2940), and made new dissections of the three BMNH specimens. One of Clemens' specimens was a very close match with the ANSP type, and a genuine *Gnorimoschema* that is unlike any of the other described species within this genus that are known to me. The taxon therefore merits recognition as a valid species. I hereby designate Clemens' specimen of *Gelechia detersella* in ANSP as the Lectotype (**here designated**), and reinstate the replacement name *Gnorimoschema brackenridgiella* (Busck) as a valid species (**stat. rev.**). No syntypes of *detersella* exist in ANSP (Weintraub, pers. comm.), and the two paralectotypes in BMNH (**here designated**) seem to be the only other known specimens. One of these two (labeled specimen 2/2; dissection BMNH33489) is a genuine *detersella*; it carries an inverted red "Type" label as well as a hand-written label by Stainton that reads: "*Gelechia* ? *detersella*, Clemens / Proc. n. S. Phil. 1860 p.164 / perhaps allied to *G. affinis*". The second specimen (labeled 1/2; dissection BMNH33488) however proved to be a *Scrobipalpa henshawiella*

(Busck, 1903), a common North American species with an external appearance that is somewhat similar to *G. brackenridgiella*. This was an original misidentification by Clemens. A new label is added to this specimen to rectify the error. And finally, dissection of the male specimen from Parish's Canadian series (not shown) confirmed that it is indeed a *Scrobipalpa atriplicella* (F.v.R.). Povolný may be vindicated for a correct identification, but he was responsible for an incorrect synonymy that persisted for nearly half a century.

Revised nomenclature

Gnorimoschema brackenridgiella (Busck, 1903) (**stat. rev.**)

G.[elechia]? *detersella* Clemens, 1860: 40, 116.

Preoccupied by *Gelechia detersella* Zeller, 1847: 846.

Gelechia brackenridgiella Busck, 1903a: 894.

Replacement name for *Gelechia detersella* Clemens, 1860: 164. — Huemer & Karsholt 2010: 128 [as a synonym of *Scrobipalpa atriplicella* (F. v. Röslerstamm)].

Gnorimoschema brackenridgiella; Busck, 1903b: 934.

Gnorimoschema brackenridgiella; Smith 1903: 110 (as a synonym of *detersella*). — Barnes & McDunnough 1917: 155. — Forbes 1923: 274. — Povolný 1967: 125 [as a synonym of *Scrobipalpa atriplicella* (F. v. Röslerstamm)]. — Hodges 1983: 22. — Lee et al 2010: 26 [under *S. atriplicella* (F. v. Röslerstamm)]. Misspelling of *brackenridgiella*.

Phthorimaea brackenridgella; Meyrick 1929: 493.

Misspelling of *brackenridgiella*.

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