

ON THE DATES OF PUBLICATION OF SCHWEINITZ'S SYNOPSES

DONALD P. ROGERS

The first paper on American fungi, the "Synopsis fungorum Carolinae Superioris secundum observationes Ludovici Davidis de Schweinitz," was published in the first (and only) volume of the *Schriften der naturforschenden Gesellschaft zu Leipzig*. That volume bears on its title-page the date 1822, and that year has in consequence usually been taken as the year of publication of Schweinitz's work. By some authors, however (e.g., Pennell, *Bartonia* 16: 4. 1934 (but see also his footnote 5); Kellerman, *Jour. Myc.* 2: 31-34. 1886; Johnson, *A memoir of the late Lewis David von Schweinitz, P.D. Phila.* 1835), the year has been given as 1818—perhaps in part because the manuscript was "laid before the Gesellschaft" on December 7, 1818 (*Naturf. Ges. Leipzig Schr.* 1: 212. 1822). Furthermore, the possibility has existed that separate copies of Schweinitz's work were issued in advance of the publication of the complete volume, and might therefore have a separate date. If Schweinitz's paper was published before 1821, it of course falls under the deadly obloquy of being pre-Friesian. Furthermore, in 1822 there were published several important mycological works, whose relative dates seem not to have been established. It is therefore a matter of some importance to determine as accurately as possible the date of the "Synopsis," in order that the nomenclatorial status of that important paper may be known.

The article immediately preceding Schweinitz's in the complete volume of the *Schriften* was read March 14, 1820, as a memorial to a man who died February 29, 1820 (p. 12); a footnote (p. 16) refers to an article published March 25, 1820. Now the first page of the introduction to the Schweinitz article (p. 20) occupies the verso of the last page (p. 19) of that obituary notice, and must have been published with it; the two articles are as closely tied together as are Fitzpatrick's and Orton's in the current volume

of *Mycologia* (cf. *Mycologia* 36: 17, 18). From this alone, then, the earliest possible date for the publication of the "Synopsis" in the *Schriften* is one later than March 25, 1820.

The last page (p. 131) of the Schweinitz article occupies the recto of the leaf on which it is printed; on the verso of the same leaf (p. 132) begins a paper by Wellner; these two must also have been published together. Next, p. 139 of Wellner's paper is on the recto of the first page of a paper by Clarus. This paper by Clarus is marked (p. 140) as having been read April 10, 1821, a still later date to which the publication of the "Syn. Fung. Car." probably was not antecedent. The last page (p. 147) of Clarus's article occupies the recto of the first page of one by Cerutti; Cerutti's paper ends on p. 157 (recto), and the next paper, by Radius, begins on the verso of the same leaf (p. 158); Radius's article ends on p. 161 (recto), and one by Schmidel begins on p. 162 (verso). The latter deals with meteorological data for the entire twelve months of 1821, and consequently neither it nor the papers joined to it could have been published as parts of the *Schriften* before 1822. Schmidel's article ends on p. 174 (verso); since its pages 169-70 are conjugate (that is, continuous through the binding, and therefore printed on the same sheet, and simultaneously) with pp. 175-76 of the following article, by Müller & Kunze, it does not even so interrupt the series. This paper by Müller & Kunze is dated (p. 176) April 6, 1822—the latest date incontestably joined to Schweinitz's paper. Nevertheless, the concatenation of articles remains unbroken through the index, which ends on p. 232. That is, quite by chance no article is of such length as to fill up the gathering of eight pages which was printed at one time on one sheet of paper. Since there are no blank pages, it follows that at least through p. 232 the *Schriften* was printed and in all probability published as a unit, and that the date April 6, 1822, is tied to the Schweinitz paper by much more than the binding of the volume.

After the index there follows a set of day-by-day weather-tables for 1821, without pagination, and dated on the last page July 18, 1822. These tables, present in at least two copies of the *Schriften* (Farlow Library, and my own) are printed on the same paper and in the same styles of type as the rest of the volume, and appear

to be a part of it. Unfortunately, the chance that served to join together all the rest operated to separate this last article: the weather-tables begin on the first page of the gathering, and therefore may just possibly have been subsequently printed and—what is more important—subsequently dated. Next comes a table of contents, in which the unpagged weather-tables are set down as commencing on p. 233, and after that, the seven plates. Because the table of contents lists the weather-tables, it is quite probable that they, with their date of July 18, 1822, formed a part of the *Schriften* as issued; but that cannot be proved from the evidence at hand.

Since the volume of the *Schriften* is dated 1822, Schweinitz's "Synopsis" probably was not issued before that year unless it appeared as an advance separate. Now there does exist a separate issue of the "Synopsis." As is generally known, Schweinitz's paper was published by Schwaegrichen, the editor of the *Schriften*, from Schweinitz's manuscript but without his knowledge. For the *Schriften* Schwaegrichen wrote a long introduction (pp. 20–27) and commissioned an illustrator to prepare the two plates.¹ The separate issue lacks that introduction; in the place of its last page the separate carries a title-page different from the heading appearing (p. 20) in the *Schriften*. It differs also in pagination, its pages running from 2–105 instead of 28–131 (whence the pagination given in the separate can be corrected by adding 26 to the numbers printed at the head of its pages), and in the signatures, which run from B (on p. 7) to O (on p. 103), instead of from E to R. Irregularities in the type (e. g., broken *s* and *t* in *ostiolis*,

¹ Arthur (*Amer. Naturalist* 17: 77. 1883) and Shear & Stevens (*Mycologia* 9: 195. 1917) have supposed that Schweinitz's "great microscope" was used in the preparation of the descriptions for the "Syn. Fung. Car." That would seem not to be the fact. In his letter to Torrey of June 24, 1820 (cf. Shear & Stevens, *Torrey Club Mem.* 16: 125. 1921), Schweinitz wrote "Since my return, having provided myself with instruments and books . . ."; and the implication is that he had provided himself with "instruments" only after his return from his European travels of 1817–18, during which he left the manuscript of the "Synopsis" with Schwaegrichen. In the introduction to the "Synopsis" Schwaegrichen wrote that he had added to Schweinitz's notes "description of the more minute parts, drawn up under a stronger microscope, of which the author himself was destitute, and illustrations . . ." (*Naturf. Ges. Leipzig Schr.* 1: 27. 1822).

p. 9, or p. 35, l. 23) are, however, the same in the separate copies (Farlow Library, Brown University library) as in the complete volume; and therefore, whatever alterations were made in pagination, the text was set in type but once. The question is then whether the "Synopsis" (a) was first set up and printed as a part of the *Schriften*, and afterwards reprinted, with page-numbers and signatures changed, or (b) was printed separately in advance, and afterwards altered so as to be incorporated in the *Schriften*. Now in the separate copy the article commences on the left-hand page, as in the complete volume; if it had first been printed in the separate form it would almost certainly have begun on the right-hand page. What is more, in the separate edition the first signature (B) is printed at the foot of p. 7, after only six pages (title-page and five pages of text), rather than after the full eight pages which normally would make up a gathering; it thus occupies the same position as signature E of the *Schriften*. The only explanation of these anomalies seems to be that the separate was printed from the same types as the complete volume without rearrangement of the forms. From this it follows that the forms were first assembled for the printing of the complete edition, and the separate is not an advance publication, but an extract. Furthermore, it follows from the evidence of the concatenation of the papers, and would be indicated by the signatures alone, that the *Schriften* was set up as a unit, and not as an assemblage of parts or numbers; it is not a periodical at all. It is equally apparent that it cannot have appeared as a completed volume before April 6, 1822, and if, as seems to be the case, the weather-tables and table of contents form a part, it cannot have appeared before July 18, 1822.

As must be the case with almost any volume ever printed, there is a possibility that the *Schriften* was issued, as well as printed, a gathering (or a few) at a time—even though each portion, of whatever size, must necessarily have been incomplete. If such a possibility be allowed, the "Synopsis" cannot be shown certainly to have been issued much later than March 25, 1820. But since more than half the volume must have been completed before the completion of the "Synopsis," and since the whole does not represent a very extensive job of printing, that possibility seems remote, and no more worth considering for this than for any coeval work.

So much for internal evidence. The earliest notice of either the *Schriften* or the "Syn. Fung. Car." seems to be that in a semi-annual *Verzeichnis neuer Bücher*. The volume of this publication for the first half of 1821 faithfully records the appearance of Fries's *Systema*, vol. I; that for the second half of the year lists the German edition of Persoon's *Traité sur les Champignons* (although the title-page of that edition is dated 1822); the volume for the first half of 1822 reports the publication of Persoon's *Mycologia europaea*, pt. I; but no Schweinitz. Finally on p. 96 of the *Verzeichnis neuer Bücher, die vom Juli bis Dezember 1822 wirklich erschienen sind* (J. Hinrichschen Buchhandlung . . . Leipzig, 1823) is listed the *Schriften*. Since the society which published Schweinitz's paper met, and published its Journal, in the city where the *Verzeichnisc* was published, there appears no reason to suppose a great delay in reporting its appearance. The *Schriften* was noticed, and Schweinitz's paper made the subject of an extensive critical review by Nees von Esenbeck, in *Flora* 6 (2): Beil. 65-86. 1823. It seems safe then to set the date of publication in the second half of 1822—later than the *Systema*, vol. I, later than Gray's *Natural Arrangement*, later than sect. I of the *Mycologia europaea*, probably later than July 18. It is earlier than vol. II (1) of Fries's *Systema*, in which the *Synopsis* is frequently cited (e. g., *S. M.* 2 (1): 12, under *Morchella patula*).

According to a letter from Schweinitz to Torrey published by Shear & Stevens (Torrey Club Mem. 16: 165. 1921), Schweinitz received copies of the "Synopsis" in time to send one to Torrey on November 24, 1822. Deduction of the estimated time required to bring the paper from Leipzig to Bethlehem would provide a fair approximation of the latest possible date of publication.

According to the decision of the Amsterdam Congress (Zesde Int. Bot. Congr. Proc. 1: 343-344), the date of publication of groups published both in advance separates and in a complete volume is the date *on* the separates, or of the journal. Since the "Syn. Fung. Car." as separately published carries no date, under that rule the groups published in it were published on the date of the whole volume, regardless of any possibility that separates were issued somewhat earlier.

The date of Schweinitz's "Synopsis Fungorum in America Boreali media degentium" is less critical than that of the earlier "Synopsis," has less often been incorrectly stated, and can be established with less difficulty. The "Syn. Fung. Am. Bor." was published in volume 4 of the new series of the Transactions of the American Philosophical Society. That volume bears on its title-page the year 1834; the article is marked (p. 141) as having been communicated to the society April 15, 1831; and both 1831 and 1834 have occasionally been given as the date for the Schweinitz paper. The series of letters published by Shear & Stevens, however, provides adequate information for determining the true date. On May 24, 1832, Schweinitz wrote to Torrey "that my Synopsis of American Fungi—is very nearly printed" (Torrey Club Mem. 16: 275. 1921). On July 29, 1832, the librarian of the American Philosophical Society wrote to Schweinitz, "I have the pleasure of sending you six copies of your work making part of [our] 4th vol. N. S." (Mycologia 9: 198. 1917). The "Syn. Fung. Am. Bor." was then issued some time between May 24th and July 29th, 1832. Now the *Transactions* were "published in numbers, at short intervals" (Amer. Phil. Soc. Tr. n. s. 4: [iii]. 1834), and the "Synopsis," published as "Article VIII" (Amer. Phil. Soc. Tr. n. s. 4: xii. 1834), apparently constituted such a number. The status of Schweinitz's paper when first issued was therefore not that of a "separate" (ascribed to it by Shear & Stevens in Mycologia 9: 198. 1917) but that of a number of a serial appearing at irregular intervals; and its date of publication is not 1831, nor 1834, that of the volume of which it forms a part, but about the middle of the year 1832.

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