During the past 90 years, the name *Aphis gossypii* has appeared innumerable times as the technical name of the cotton or melon aphid, an insect that is known throughout the world as a major pest of numerous plants. Although there has been little published discussion of the validity of the name, there are apparently older names for the insect usually known as *gossypii*. This application is submitted in the hope that the best known and most frequently used name will be validated and thus preserved as the designation for this common insect.

2. The original publication date of the name *Aphis gossypii* Glover is rarely indicated, but it has been cited by various workers as 1854, 1855, 1876, and 1877. Glover's pertinent references are as follows:


   Aphis gossypii, 1877: 36.

3. Dodge (1888: 14, 24), Glover's friend and biographer, stated that Glover was an employee of the Bureau of Agriculture (Department of Agriculture after 1862) in the United States Patent Office from June 1854 to 1878, with the exception of a period between 1859 and 1863. During his tenure with the Bureau and Department of Agriculture, Glover, according to Dodge (1888: 63-68), authored 19 reports that were included in the Annual Reports of the Commissioners, and 39 articles that appeared in Monthly Reports of the Department. I have examined all 58 papers and found the name *Aphis gossypii* only in the Annual Report published in 1877, though aphids on cotton were mentioned briefly in several Reports.

4. Three of the references (1855, 1856, 1867) cited contain almost identical descriptions and illustrations of the "cotton louse". The general descriptions and crude illustrations portray winged and wingless adults, and nymphs. The 1877 discussion is much shorter than the others and does not include illustrations of *gossypii*, but in it Glover stated, "A more full description of them may be found in the Patent-Office Agriculture Report for 1855". From this statement workers may have concluded that the name *Aphis gossypii* appeared in the earlier publication. The erroneous dates 1854 and 1876 also may have been cited because workers did not realize the volumes for those years were published the following years. Or persons may have followed Pergande (1895: 309-310) who cited 1854, 1855 and 1876, though he indicated that the Reports were for those years.

5. Cotton is unquestionably the type host of *gossypii*, but the type locality is uncertain. Glover studied cotton insects in South Carolina and Florida in 1854 and 1855 and in Mississippi in 1857, according to Dodge (1888: 14, 16).
Glover himself (1855 : 59) mentioned visiting plantations near Columbia, South Carolina, and indicated (1856 : 69) that he studied cotton insects at unspecified locations in Georgia. The type locality may have been in any of these States.

6. There are no type specimens of gossypii. Glover's opinion of museum specimens and descriptions of species was explained by Howard (1930 : 37), who wrote, "One of Glover's unfortunate hobbies was his belief that a picture of an insect is of far more value than a cabinet specimen of the same species. Insects themselves, he always stated, are eaten by museum pests and are otherwise destroyed, but a picture, barring unlikely accidents, will live forever. Convinced of this, he commenced to figure in colour every species he procured, and cared nothing what became of the species after he had fixed their likeness on paper. Systematic and descriptive entomology he cared nothing about, and it was his boast that he had never described and named an insect". Thus Glover apparently proposed the name Aphis gossypii unintentionally.

7. Aphis gossypii is now firmly established in entomological literature, but it may be antedated by less well known names. Several names of European species of Aphis may be applicable to the insect generally known as gossypii. Boerner (1952 : 88) indicated that gossypii might be a synonym of Aphis vitis Scopoli 1763 or Aphis convolvulicola Ferrari 1872, two possibilities that have not been accepted or rejected in publications by subsequent workers. Years ago Patch (1925 : 193) stated that gossypii might be the same as Aphis sedi Kaltenbach 1843, a suggestion that appears to have been disproved by Kring (1956 : 443) through the study of living insects in Connecticut. Boehm (1964 : 67-68) synonymized gossypii with Aphis frangulae Kaltenbach 1855, stating:

"According to observations in the field and in breeding tests it has been found out that the material of the Aphis frangulae/Aphis gossypii-complex which appears in the eastern parts of Austria on Cucurbitaceae and Rhamnaceae belongs to one species and both species names are considered to be synonyms". Davletshina (1964 : 576), however, distinguished frangulae Kaltenbach (nee auct.) from gossypii.

8. Finally, there is an American name, Aphis circezandis Fitch 1870, that evidently is applicable to the concept of gossypii Glover. Baker (1918 : 130-131) discussed and redescribed circezandis briefly, stating that it was described in 1870, and that "The name appears to be a synonym of gossypii Glover". Baker did not cite the publication date of gossypii, but he presumably believed it was before 1870. There have been few references to circezandis since Baker's statement. Gillette and Palmer (1932 : 392-393, 400), who gave the publication date of circezandis as 1870 and that of gossypii as 1877, recognized both species. They stated that although Baker's determination of Fitch's types might be correct, they were reluctant to so determine Colorado examples without further biological study. They indicated that in Colorado specimens from Galium sp. the cornicles and unguis differed slightly in proportions from those of typical gossypii. They stated further that, "... as far as we know, A. gossypii has not been reported from Galium. These facts indicate that circezandis may be distinct". However, Palmer did not use the name circezandis
in her 1952 study. Under *gossypii* (1952: 139) she referred to Gillette and Palmer (1932), and included *Galium* sp. as a host, thus implying that the Fitch and Glover names were synonymous. Here she cited the original publication date of *gossypii* as 1876.

9. In his published description of *circezandis*, Fitch (1870: 501–502) did not indicate the number of specimens before him, but his unpublished notes state, “nos. 11319–23, *Galium circaezans*, June 11, 1852, dugway woods, Salem, New York”. From the numbers “11319–23” one might infer, as did Baker (1918: 131), that Fitch had five specimens. However, only four Fitch syntypes of the species were found by Baker, and only four are now present in the collection of the U.S. National Museum. The four are winged adults, the form described by Fitch. The four types of *circezandis* are uncleared and are too badly broken to permit remounting. Although it is impossible to make comparative measurements of some structures, diagnostic morphological characters can be seen in one or another of the insects. I have examined these specimens as critically as is possible in their present condition, and think that they are typical of *gossypii* as that species is identified from cotton and numerous other plants. Although I have not seen other aphids from *G. circaezans*, I have examined specimens from *Galium aparine* from Long Island, New York, from *G. lanceolatum* in Minnesota, and from *G. pilosum* in Florida. The specimens from *G. aparine* are not *gossypii*, but the others appear to be this species.

10. Fernald (1950: 1322) gives the distribution of *Galium circaezans*, with its variety *hypomalacum*, as southern Maine and western Quebec to Minnesota and southward to Texas and Florida. Thus this and other species of *Galium* grow in the southern, cotton growing states, and it is reasonable to suppose that a polyphagous species such as *gossypii* might attack both *Gossypium* and *Galium*.

11. From the study of the syntypes of *circezandis* and on the basis of host associations, I conclude that the names *circezandis* and *gossypii* represent a single species. I here designate the specimen on slide no. 1322 as the lectotype of *Aphis circezandis* Fitch, USNM No. 69956. (Numbers on the Fitch slides are 1319–1322, instead of 11319–11322 as given in his unpublished notes.)

12. *Aphis gossypii* is well known and is accepted around the world as the name of a species that is directly injurious to numerous plants and is recorded as a vector of at least 40 virus diseases. It has appeared in literature innumerable times, whereas *circezandis* apparently has appeared less than 12 times, and any other available names have been little used in comparison with *gossypii*. For these reasons it seems that *gossypii* should be retained. However, because of differences of opinion on synonymy and because other names may later be needed for distinct but closely related species, I do not propose formal suppression of all earlier names than *gossypii*.

13. In order that the best known, universally and most frequently used name may be preserved, I request the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to suppress *Aphis circezandis* Fitch, 1870, for purposes of the Law of Priority but not for those of the Law of Homonymy;
(2) to place the specific name *gossypii* Glover, 1877, as published in the binomen *Aphis gossypii*, on the Official List of Specific Names in Zoology;

(3) to place the specific name *circezandis* Fitch, 1870, as published in the binomen *Aphis circezandis*, as suppressed under the plenary powers in (1) above, on the Official Index of Rejected and Invalid Specific Names in Zoology.

**References Cited**


— 1856. Insects in *Report of the Commissioner of Patents for the year 1855*, pp. 64-119, illus. (Insects found on the leaf. The cotton louse pp. 68-69, pl. VI, fig. 2)


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