PROPOSED USE OF THE PLENARY POWERS TO VALIDATE THE SPECIFIC NAME "PRUNI" GEOFFROY, 1762, AS PUBLISHED IN THE COMBINATION "APHIS PRUNI" (CLASS INSECTA, ORDER HEMIPTERA)

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(Commission’s reference Z.N.(S.)428)

The present application arises out of the decision taken by the International Commission on Zoological Nomenclature in July 1948 that Geoffroy in his Histoire abrégée des Insectes qui se trouvent aux Environs de Paris, published in 1762, did not consistently apply the principles of binominal nomenclature and therefore that no name published in the foregoing work acquires availability under the Law of Priority in virtue of having been so published (1950, Bull. zool. Nomencl. 4 : 366-369) and in particular from Point (2) of that decision where the International Commission agreed to consider separately, Order by Order, any cases where, as the result of the foregoing decision, names in common use were found not to be available and where therefore it was desirable that the Commission should use its Plenary Powers to validate the names in question and so to avoid the confusion and name-changing which would otherwise be unavoidable.

2. Aphid taxonomists are not affected by the foregoing decisions, so far as they relate to generic names. They are, however, very much affected as regards one specific name which was published by Geoffroy in binominal form, although in the work in question he did not apply generally the principles of binominal nomenclature. This name is Aphis pruni Geoffroy, 1762 (Hist. abrég. Ins. Paris 2 : 497). This name is of importance, because it is the oldest name which unquestionably applies to the Mealy Plum Aphid.

3. Geoffroy did not actually describe the species to which he applied the name Aphis pruni, but he gave a reference to Réaumur (1737, Mém. Hist. Ins. 9 (3) : 317) who gave an excellent description of the Mealy Plum Aphid. The name Aphis pruni Geoffroy is thus firmly based upon an unquestionable identification.

4. The Mealy Plum Aphid is the type species of the genus Hyalopterus Koch, [1854] (Die Pflanzenläuse-Aphiden 1 : 16). Aphis pruni Fabricius (an erroneous citation for Aphis pruni Geoffroy, since Fabricius did not publish this as a new name, merely using Geoffroy’s name) having been selected as the type species of this genus by Passerini (1860, Gli Afidi (ed. 2) : [27]). (The name Hyalopterus is commonly treated as having been published in 1857, but this is incorrect. Koch’s book was published in four Hefte, of which the last was published in 1857 and the first in 1854. The name Hyalopterus occurs in the first Hefte and should therefore be dated 1854.)

5. The Mealy Plum Aphid has been known under a large number of different specific names, its nomenclature having been exceptionally unstable. Smith (L.M.) (1936, Hilgardia 10 (7) : 167-209), who applied the name Hyalopterus pruni (Geoffroy) to this species, made a careful review of the literature relating Bull. zool. Nomencl., Vol. 9, Pt. 6. May, 1954.
to this species, in the introduction to which he wrote: "The scientific name of this species has been changed repeatedly; in fact, if each of the following authors is recognised, the status of the name has been changed twenty-one times, in the course of which the species has been described eight times as new. This review of the taxonomy does not include many of the lesser notes of an economic nature, which give Hyalopterus arundinis (Fabr.) priority over H. pruni (Fabr.) and vice versa." It will be immediately evident, therefore, how urgent it is that the name to be applied to this important economic insect should be stabilised without further delay.

6. If the name Aphis pruni Geoffroy, 1762, were not now to be validated by the International Commission under the procedure foreshadowed at its Paris Session, it would be necessary to consider the question of the name Aphis arundinis Fabricius, 1775 (Syst. Ent.: 734). After giving this species the foregoing binominal name in the manner adopted throughout this work (i.e. with the generic name at the head of the page and the specific name in the margin opposite the description), Fabricius referred to this species as Aphis arundinis epigeios, giving its habitat as "Habitat in arundinis epigeios foliis" and completing the description of this species with a short Latin diagnosis. Although in the past this nominal species has frequently been identified with the Mealy Plum Aphid, it is by no means established that this identification is correct. In particular, it must be noted that Fabricius gave Arundo epigeios as the host species of Aphis arundinis and that this plant, as Börner (1932, Anz. Schädlingsk. 8 (8): 8-11) has shown, is a hard-leaved sandgrass belonging to the group Agrostideae, which is not at all closely related to the group Festuceae, to which belong the only known alternate host plants of the Mealy Plum Aphid. In spite of repeated search on plants of Calamagrostis epigeios (the currently accepted scientific name of the host species cited by Fabricius), Börner was unable to find the Mealy Plum Aphid on this species. For this reason and because of the nature of the plant, Börner concluded that it was not a host plant for this species. Smith (L.M.) (1936, Hilgardia 10 (7): 196-203), after a most careful study of the host plants of this species, concluded (p. 201) that Calamagrostis epigeios must be rejected as a host plant of the Mealy Plum Aphid.

7. For so long as any doubt remains regarding the identity of the species represented by the nominal species Aphis arundinis Fabricius, 1775, it would be undesirable in the highest degree to allow a situation to arise in which it could be claimed that the specific name arundinis Fabricius, 1775, is the oldest available specific name for the Mealy Plum Aphid, for there would always be the danger that later work might show that this name was not applicable to that species and, in consequence, that still another change would need to be made in the name to be used for this species. The extreme importance of providing a stable nomenclature for this species arises not only from the economic problems involved, wherever this species occurs, but also from its wide distribution. The importance of this latter factor is well brought out in the following passage in which Smith (L.M.) (1936, loc. cit. 10 (7): 170-171) has shown how extremely widespread is this species: "Hyalopterus pruni (Geoff.) has been frequently reported in many sections of the world, and particularly in the north temperate zone. It has been reported in Africa (Union of South Africa), Australia, Belgium, Canada, China, Denmark, Egypt, England, France,
Germany, India, Ireland, Italy, Japan, Java, Latvia, Morocco, New Zealand, Norway, Palestine, Peru, Portugal, Russia, Scotland, Slavonia, Sweden and Switzerland . . . In the United States this species was first reported from the vicinity of Carmel, California, in 1881. It was reported in Minnesota in 1885. At present it is known to occur in California, Colorado, Connecticut, Illinois, Iowa, Kansas, Maine, Minnesota, Nebraska, Nevada, New Jersey, New York, Ohio, South Dakota and Utah."

8. In view of the economic importance of the Mealy Plum Aphid, it is essential that there should be no room for doubt regarding its correct specific name. The specific name now accepted for this species is pruni Geoffroy, 1762, as published in the combination Aphis pruni, but, as is now clear, that is not an available name, unless the International Commission steps in to make it so, by validating it under its Plenary Powers under the procedure envisaged in Paris in 1948. It is very important that the International Commission should intervene in this way, for confusion extending far outside the limits of systematic zoology would inevitably follow if it were necessary now to discard the specific name pruni Geoffroy, 1762. The risk of confusion and instability is always great when the name of an important economic species is changed for purely technical nomenclatorial reasons (such as those involved in the present instance) but the risk of such confusion and instability is greatly enhanced in the present instance by reason of the fact that, as explained in paragraph 6 above, the next oldest name after pruni Geoffroy, 1762, that has to be considered is a name (arundinis Fabricius, 1775, published in the binominal combination Aphis arundinis) applied to a species which cannot be identified with certainty with the Mealy Plum Aphid. Thus, if no action were to be taken by the International Commission, finality could not be obtained regarding the correct name to be applied to this species.

9. It is for the purpose of eliminating these dangers and avoiding these uncertainties that the International Commission on Zoological Nomenclature is now asked:—

(1) under the procedure agreed upon by the Thirteenth International Congress of Zoology, Paris, 1948, for adoption in the case of names in common use that might be found to be invalid, consequent upon the substitution of the expression “nomenclature binominal” for the expression “nomenclature binaire” in Article 25, to use its Plenary Powers to validate the specific name pruni Geoffroy, 1762 (as published in the combination Aphis pruni and as interpreted by the reference given by Geoffroy to the description published by Réaumur in 1737 (Mém. Hist. Ins. 9 (3) : 317));

(2) to place on the Official List of Specific Names in Zoology the specific name pruni Geoffroy, 1762, as published in the combination Aphis pruni and as interpreted by the reference to Réaumur (1737) specified by Geoffroy, as proposed, under (1) above, to be validated under the Plenary Powers;

(3) to place on the Official List of Generic Names in Zoology the generic name Hyalapterus Koch, 1854 (type species, by selection by Passerini (1860): Aphis pruni Geoffroy, 1762).

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