Kawak. et Koiz. del.

Malus Formosana, Kawak. et Koiz.

F. Fujisawa sculp.

A New *Malus* of Formosa.

by

Takiya Kawakami.

(With Plate IV.)

In November, 1905, on my exploring trip to Mt. Niitaka, I chanced to discover the fruit of a very rare plant belonging to *Pomaceæ* at Mt. Suizan, 7000 feet high, in the southern part of the Arisan range. As it resembled an apple in appearance I tasted it and found it somewhat like an apple but rather astringent with a fine odour. Afterward I was told that the aboriginies usually eat them cooked.

As the tree was 5 to 4 feet in circumference and 40 to 50 feet high, I was not able to pluck either the boughs or the leaves, and had to content myself with the picking up of the leaves and fruit lying about on the ground. In October of the falling year, I collected some of the same fruit again at Mt. Arisan. At this time I found that the tree belonged to the genus of apple-trees, but being unable to obtain the flower, I could not properly specify it. In March of this year, however, Mr. MORI of the Botanical Laboratory, succeeded in collecting the flower of this tree at a place 7000 feet high in Mt. Gokwan in the aboriginal district of Nanto. Some time afterward Mr. SASAKI my assistant found the flower of the same tree in its latter stage of bloom at Mt. Bui in the district of Ako. After having gathered all these facts together, I was at last enabled to solve this difficult problem which had been taking my attention for year. The plant in question is a species of wild apple tree and is called *Sashibe* or *Sado* by the aboriginies. According to Mr. MORI, "*Sashibe*" is the name given by the Bunun tribe, and "*Sado*" is the one used by the Atayal tribe living near Horisha.

This plant is well-known among the formosan aboriginies so that their villages are often named after this plant. This plant is called "*Take sashibe*" in Ako district and "*Alan sad*" at Horisha, both "*Take*" and "*Alan*" signifying a tribe. It is said that among the aboriginies of the Paiwan tribe of Taito district, their villages are often named after this plant. The Chinese inhabitants, however name it differently at Ako it is called *Shaburai* and at Rinkiho *Soan-sha*. The fruit is often pickled in salt and sold by Chinese grocery dealers in towns in the vicinity of the savage district. They cost on an average about 6 sens per dozen, I bought some of the fruit myself at Ako and Rinkiho. The seed of the fruit germinating very easily, it could, in my opinion, be succesfully grafted with good European apples. This is, however a practical question requiring an experiment. In April of this year, I made a scientific research into the nature of the said plant in collaboration with Mr. G. KOIZUMI of the Science College of the Tokyo University, which resulted in our identifying it as a new species. The following is the description of the plant.

***Malus formosana*, KAW. et KOIZ.**

Pirus formosana, KAW. et KOIZ., KAWAK. in List. pl. Formos. (1910). No. 471.

Arbor, ultra 50 ped. altus; ramis glabris nigro-castaneis; innovationibus puberulis. Folia alterna, membranacea, glabra; juniora utrinque albo tomentosa; oblonga vel elliptico-oblonga, acuta, basi rotundata vel obtusa, crenata vel inaequaliter grosse arguteque serrata. 9–15 cm. longa, 4–6½ cm. lata; petiolis mox glabris circ. 2–3 cm. longis; stipulis lineari-lanceolatis caducis. Corymbi ad 5 flori; floribus albis, 2½ cm. in diametro; pedunculis albo-tomentosis 1.5–30 cm. longis. Calyx utrinque albo-tomentosus, tubis turbinato-campanulatis; lobis ovato-lanceolatis caudato-acuminatis, demum reflexis. Petala ovalia breve unguiculata pallide lutescente-suffusa. Stamina circ. 30, filamentis glabris subulatis; antheris flavis Styli (4)–5 basi coaliti lanati. Discus carnosus

ore longe strangulato. Ovarium inferum 5-loculare, in loculis biovulatis. Pomum globosum 4–5cm. in diametro, flavo-rubrum, apice calycis lobis persistentibus coronatis; pedicellis brevibus; semina obovoidea laevia.

Nom. jap. Taiwan-ringo (T. KAWAKAMI).

Nom. nativ. Sashibe (Bunun), Sad (Tayal), Shaburai (Ako), Soan-sa (Taito, Kagi, Horisha).

Hab. Formosa: in sylvis montuosis temperatis (ad 5–7000 ped. alt.); Mt. Arisan (T. KAWAKAMI, 1905), Mt. Gokuwān (U. MORI, 1910), Rōnōkei (U. MORI, 1908). Taito (U. MORI, 1907), Hakku-taisan (U. MORI, 1910) Mt. Bui (S. SASAKI, 1910) Mt. Muto (T. KAWAKAMI, 1911.).

A speciebus aliis differt, disci ore longe constricto; foliis majoribus, oblongis, crenatis vel inaequaliter grosse arguteque serratis.

Explicatio Tab. IV.

1. Ramulus fl. (Mag. nat.)
 2. Sectio verticalis fl., (Mag. Aug.)
 3. Fructus mat., (Mag. Nat.)
 4. Verticalis ejus sectio, (Mag. Nat.)
 5. Transversalis ejus sectio, (Mag. Nat.)
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