Important Japanese *Rubus* collection deposited in the New York Botanical Garden

Naohiro NARUHASHI

ニューヨーク植物園に収蔵されている重要な日本産バラ科キイチゴ属の標本

鳴橋直弘

**Abstract:** A part of the specimens in the Herbarium of the New York Botanical Garden (Herbarium abbreviation NY) was shown in Web recently as C. V. Starr Virtual Herbarium, including twenty-two specimens of *Rubus* (Rosaceae) from Japan as well as the many type specimens that are very important in taxonomy. Author’s records of observations at NY in 1985 with the data of images in the Web were compared and those labels and the original literatures described as new taxon were studied. As a result, the accurate identification of the specimens, and corrections and additions of new information are reported in this study.

**Key Words:** herbarium; Japan; New York Botanical Garden; *Rubus*; type specimen

I had a chance to observe the Japanese *Rubus* specimens deposited in the Herbarium of New York Botanical Garden (NY) in 1985. *Rubus* is a genus belonging to Rose family (Rosaceae) in vascular plants. In the herbarium I could study the important collections collected long time ago from Japan. Recently I viewed the list and images of important *Rubus* collections in Web site of the C.V. Starr Virtual Herbarium (http://sweetgum.nybg.org/science/vh/). In the Web site I noticed that there are a few misidentifications and there are many types without exact type status. According to my notebook and my knowledge, I made correct identifications, exact type status and added the information on the location of the specimens as possible as I can. The results are shown in Table 1.

Important specimens were surely included in the collections. The first specimens were those carried by the "Black Ship" to the United State of America and were studied by Asa Gray who first discovered the similarity of the plants in northeastern part of North America and those in Japan by using those specimens (Gray, 1846 & 1858). The second specimens were those that Carl Johann Maximowicz studied. This botanist visited Japan before the Meiji era and named many Japanese plants (Maximowicz, 1872), and was the person who elucidated a Japanese flora. The third specimens were those that Otto Kuntze studied. He traveled around the world, studied *Rubus* (Rosaceae) energetically, and wrote a monograph of *Rubus* (Kuntze, 1879).

On the collection date, I added a note based on a schedule of the collection in Japan of the "Black Ship" (Koyama, 1996).

I arranged the result as ten items in the Table 1. NY specimen ID, Filed as, All determinations, Location, Collector, Type status, Author’s determination, Modern name of location, Kind of type, Note are information or data in Web (1st. December 2015). Author’s determination, Modern name of location, Kind of type, Note are my conclusion and new information.

I thank the curator of the Herbarium of New York Botanical Garden (NY) for the permission to observe the specimens, two anonymous reviewers for providing useful suggestions and Dr. Madjit Hakki for the linguistic corrections.
<table>
<thead>
<tr>
<th>NY specimen ID</th>
<th>Filed as</th>
<th>All determinations (*1)</th>
<th>Location (*2)</th>
<th>Collector</th>
<th>Type status</th>
</tr>
</thead>
<tbody>
<tr>
<td>39460</td>
<td>R. parvifolius L.</td>
<td>R. parvifolius L.</td>
<td>Hokkaido Pref.</td>
<td>C. Wright s.n. 1853-1856</td>
<td>—</td>
</tr>
<tr>
<td>39695</td>
<td>R. parvifolius L.</td>
<td>R. parvifolius L.</td>
<td>Tokunosima Island</td>
<td>C. Wright s.n. 1853-1856</td>
<td>—</td>
</tr>
<tr>
<td>39729</td>
<td>R. parvifolius L.</td>
<td>R. parvifolius L.</td>
<td>Shizuoka Pref.</td>
<td>S. W. Williams s.n. with James Morrow 1854</td>
<td>—</td>
</tr>
<tr>
<td>391934</td>
<td>R. Wrightii A.Gray</td>
<td>R. Wrightii A.Gray</td>
<td>Hokkaido Pref.</td>
<td>C. Wright s.n. 1853-1856</td>
<td>Possible type</td>
</tr>
<tr>
<td>391943</td>
<td>R. hydastifolius A.Gray</td>
<td>R. hydastifolius A.Gray, R. trifidus Thunb.</td>
<td>Shizuoka Pref.</td>
<td>S. W. Williams s.n. with James Morrow 1854</td>
<td>Type</td>
</tr>
<tr>
<td>392001</td>
<td>R. coptophyllus A.Gray</td>
<td>R. coptophyllus A.Gray; R. microphyllus L.f.</td>
<td>Yokohama</td>
<td>S. W. Williams s.n. with James Morrow 1854</td>
<td>Type</td>
</tr>
<tr>
<td>429663</td>
<td>R. buergeri f. herbacea Kunze</td>
<td>R. buergeri f. herbacea Kunze</td>
<td>Nagasaki Pref.</td>
<td>C. E. O. Kuntze s.n. 1863</td>
<td>Possible type</td>
</tr>
<tr>
<td>429666</td>
<td>R. calycinus Wall. var. transiens Kunze</td>
<td>R. calycinus Wall. var. transiens Kunze</td>
<td>Ishu</td>
<td>C. E. O. Kuntze 17 Dec. 1874</td>
<td>Possible type</td>
</tr>
<tr>
<td>429667</td>
<td>R. calycinus Wall. var. pectinelloides Kunze</td>
<td>R. calycinus Wall. var. pectinelloides Kunze</td>
<td>Ishu auf Simosa</td>
<td>C. E. O. Kuntze 06 Jan. 1874</td>
<td>Possible type</td>
</tr>
<tr>
<td>429675</td>
<td>R. cratægfolius Bunge</td>
<td>R. cratægfolius Bunge</td>
<td>Nippon, Senano</td>
<td>S. Tschonoski s.n. 1864</td>
<td>Type</td>
</tr>
<tr>
<td>429687</td>
<td>R. idæus subsp. strigosus (Michx.) Focke</td>
<td>R. idæus subsp. strigosus (Michx.) Focke</td>
<td>Nippon; Prov. Senano</td>
<td>S. Tschonoski s.n. 1864</td>
<td>Possible type</td>
</tr>
<tr>
<td>429706</td>
<td>R. pelatus Maxim.</td>
<td>R. pelatus Maxim.</td>
<td>Nippon</td>
<td>S. Tschonoski s.n. 1864</td>
<td>Possible type</td>
</tr>
<tr>
<td>429708</td>
<td>R. phœnicolais Maxim.</td>
<td>R. phœnicolais Maxim.</td>
<td>Hakodate; ad lacum konome, in herbosis humidis</td>
<td>C. J. Maximowicz s.n. Jun. 1861</td>
<td>Possible type</td>
</tr>
<tr>
<td>429716</td>
<td>R. sorbibolus Maxim.</td>
<td>R. sorbibolus Maxim.</td>
<td>Nagasaki Pref. In alpe Higo-san principatus Higo</td>
<td>C. J. Maximowicz s.n. 1863</td>
<td>Possible type</td>
</tr>
<tr>
<td>429719</td>
<td>R. trilîrus var. japonicus Maxim.</td>
<td>R. trilîrus var. japonicus Maxim.</td>
<td>Nippon; Fudzi-yama</td>
<td>S. Tschonoski s.n. 1864</td>
<td>Possible type</td>
</tr>
<tr>
<td>429794</td>
<td>R. bracteosus A.Gray ex Kuntze</td>
<td>R. bracteosus A.Gray ex Kuntze; R. sieboldii Bl.</td>
<td>Loo Choo (Ryûkyû) Islands</td>
<td>C. Wright s.n. 1853-1856</td>
<td>Probable isotype</td>
</tr>
<tr>
<td>512007</td>
<td>R. mesogaæus Focke ex Diels</td>
<td>R. mesogaæus Focke ex Diels; R. microphyllus L.f.; R. incius Thunb.</td>
<td>Shizuoka Pref. Shimoda</td>
<td>C. Wright s.n. 1853-1856</td>
<td>—</td>
</tr>
</tbody>
</table>

*1: Determinations by previous taxonomists.
*2: Locality written on the sheet.
*3: Literature of original description of the type.
*4: Isotype of R. trilîrus Richardson var. japonicus Maxim., R. japonicus Focke, R. americanus (Pers.) Britton var. japonicus (Maxim.) Koidz. and R. pseudojaponicus Koidz.
*5: Fuji Mountain is very famous mountain in Japan, bordered by Shizuoka Pref. and Yamanashi Pref.
<table>
<thead>
<tr>
<th>Author’s determination</th>
<th>Modern name of location</th>
<th>Kind of type</th>
<th>Literature (*3)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>R. parvifolius L.</td>
<td>Tokunoshima Island, Oshima-gun, Kagoshima Pref.</td>
<td>Not type specimen</td>
<td><em>3</em></td>
<td>Probably collection in 1855.</td>
</tr>
<tr>
<td>R. parvifolius L.</td>
<td>Shimoda, Shimoda City, Shizuoka Pref.</td>
<td>Not type specimen</td>
<td><em>1</em></td>
<td></td>
</tr>
<tr>
<td>R. crataegifolius Bunge</td>
<td>Hakodate, Hakodate City, Hokkaido Pref.</td>
<td><em>Isotype of R. writhii A.Gray</em></td>
<td>Gray, 1858</td>
<td>Collection is in June 1855 according to Asa Gray (1858).</td>
</tr>
<tr>
<td>R. trilfus Thunb.</td>
<td>Shimoda, Shimoda City, Shizuoka Pref.</td>
<td><em>Isotype of R. hydastifolius A.Gray</em></td>
<td>Gray, 1857</td>
<td></td>
</tr>
<tr>
<td>R. palmatus Thunb.</td>
<td>Yokohama, Yokohama City, Kanagawa Pref.</td>
<td><em>Isotype of R. coptphyllus A.Gray</em></td>
<td>Gray, 1857</td>
<td></td>
</tr>
<tr>
<td>R. buergeri Miq.</td>
<td>Shimoda, Shimoda City, Shizuoka Pref.</td>
<td><em>Holotype of R. pectincelloides Kuntze and R. calycinus Wall. var. pectincelloides (Kuntze) Kuntze</em></td>
<td>Kuntze, 1879 &amp; 1891</td>
<td>Collection date is not 1874, but 1875.</td>
</tr>
<tr>
<td>R. mesogaeus Focke</td>
<td>Nagano Prefecture, detail unknown</td>
<td>Probably not type specimen</td>
<td><em>1</em></td>
<td></td>
</tr>
<tr>
<td>R. peltatus Maxim.</td>
<td>Probably Nagano Pref.</td>
<td><em>Isotype of R. peltatus Maxim.</em></td>
<td>Maxim., 1872</td>
<td></td>
</tr>
<tr>
<td>R. phoenicolasius Maxim.</td>
<td>Hakodate, Hakodate City, Hokkaido Pref.</td>
<td><em>Isosynotype of R. phoenicolasius Maxim.</em></td>
<td>Maxim., 1872</td>
<td></td>
</tr>
<tr>
<td>R. phoenicolasius Maxim.</td>
<td>Hakodate, Hakodate City, Hokkaido Pref.</td>
<td><em>Isosynotype of R. phoenicolasius Maxim.</em></td>
<td>Maxim., 1872</td>
<td></td>
</tr>
<tr>
<td>R. sumatranus Miq.</td>
<td>Probably Mt. Hiko, Soeda-machi, Tagawa-gun, Fukuoka Pref.</td>
<td><em>Isosynotype of R. sorbifolius Maxim. and R. rosifolius Sm. var. sorbifolius (Maxim.) Kuntze</em></td>
<td>Maxim., 1872</td>
<td>A collector except Maximowicz is possible.</td>
</tr>
<tr>
<td>R. pseudosaponicus Koidz.</td>
<td>Mt. Fuji (Shizuoka Pref. or Yamanashi Pref.?)</td>
<td>*Isotypes of four taxa (See below <em>4)</em></td>
<td>Maxim., 1872; Focke, 1874; Koidz., 1909 &amp; 1911</td>
<td>Fudzi-yama means Fuji Mountain (See below *5).</td>
</tr>
</tbody>
</table>
**Literature Cited**


