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# Additional species of rust fungi of the Amami Islands

By

Shun-ichi SHIMABUKURO and Masao TAMORI\*

The Amami Islands are included in the Ryukyu Archipelago, and are located in the area from latitude 27° to 28°35'N. and from longitude 127°23' to 130°03'E.

Up to 1955, there have been recorded 3 species of rust fungi from the Amami Islands by Hiratsuka, f. in 1937, 3 sp. in 1940 and 8 sp. in 1952, Hiratsuka, f. and Shimabukuro 11 genera and 46 sp. in 1954, Hiratsuka, f., Shimabukuro and Niiro 24 genera and 108 sp. in 1955.

From 1956 to 1961, there were 28 additions of rust fungi recorded by T. Hiratsuka, S. Shimabukuro and M. Tamori.

In the present paper, the writers enumerated the additional species of the rust fungi found in the Amami Islands, based upon collections made by junior writer from Okierabu-shima, Tokuno-shima and Amami-oshima in March and August of 1961. As shown in the table, there are 18 additional species to the rust fungi flora known by this time of Amami Islands. They are: *Melampsora* is represented by 1 sp., *Phakopsora* 1 sp., *Uromyces* 2 sp., *Puccinia* 11 sp., *Uredo* 1 sp., and *Aecidium* 2 sp. The table also says that there have been reported 25 genera and 154 species of the rust fungi from the Amami Islands up to June of 1962.

The writers wish to express our great thanks to Dr. Naohide HIRATSUKA, for his valuable and constructive suggestions and encouragement of this work.

1. *Melampsora coleosporioides* Dietel in Engl. Bot. Jahrb. XXXII, p. 50, 1902.

Hab. II. on *Salix babylonica* Linn. (*Shidare-yanagi*). Amami-oshima Isl.: Koniya, Setouchi-machi (Aug. 20, 1961, M.T.\*\*, no. Oshima-201).

2. *Phakopsora meliosmae* Kusano in Bot. Mag. Tokyo. XVIII, p. 148, fig. a-c, 1904.

Hab. II. on *Meliosma rhoifolia* Maxim. (*Yanbaru-awabuki*). Amami-oshima Isl.: Agina, Setouchi-machi (Aug. 21, 1961, M.T., no. Oshima-203).

3. *Uromyces galii* Dietel in Ann. Myc. V, p. 71, 1907.

Hab. I, III. on *Galium spurium* L. var. *echinospermum* Hyek. (*Yaemugura*). Tokunoshima Isl.: Kedoku, Tokunoshima-machi (Mar. 25, 1961, M.T., no. Toku-72).

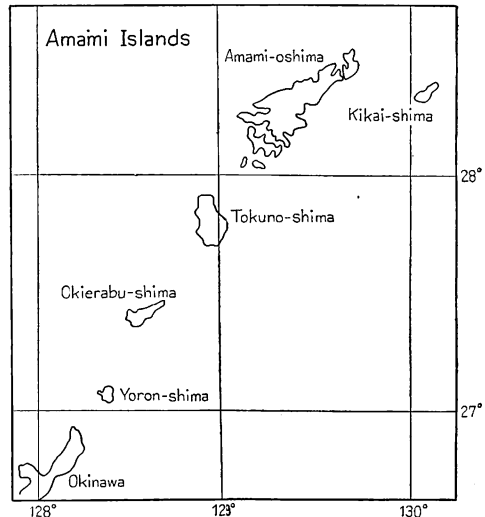


Fig. 1

Contributions from Laboratory of Phytopathology, Division of Agriculture, Home Economics & Engineering, University of Ryukyus, no. 18.

\* Department of Agriculture, Division of Agriculture, Home Economics & Engineering.

\*\* M.T.=Masao Tamori.

Table 1. Number of species of rust fungi found in the Amami Islands.

Families	Genera	Number of species			
		Up to 1955	Additions 1956-1961	Present additions	Total
Melampsoraceae	<i>Uredinopsis</i>	1			1
	<i>Milesina</i>	4			4
	<i>Hyalopsora</i>	1	1		2
	<i>Pucciniastrum</i>	5			5
	<i>Melampsora</i>	2		1	3
	<i>Phakopsora</i>	10		1	11
	<i>Cronartium</i>		1		1
	<i>Crossopsora</i>	2			2
	<i>Coleopucciniella</i>	1			1
	<i>Dasturella</i>	1			1
	<i>Coleosporium</i>	10			10
Pucciniaceae	<i>Didymopsorella</i>	1			1
	<i>Hemileia</i>	1			1
	<i>Pileolaria</i>	1			1
	<i>Kuehneola</i>	2			2
	<i>Tranzschelia</i>	1			1
	<i>Hamaspora</i>	1			1
	<i>Phragmidium</i>	2	1		3
	<i>Nothoravenelia</i>	1			1
	<i>Endophyllum</i>	1	1		2
	<i>Poliotelium</i>	1			1
	<i>Uromyces</i>	15	5	2	22
	<i>Puccinia</i>	35	17	11	63
	Uredinales Imperfecti	<i>Uredo</i>	4	1	1
<i>Aecidium</i>		5	1	2	8
Total		108	28	18	154

4. *Uromyces yakushimensis* Hiratsuka, f. et Katsuki in Hiratsuka, f. Ured. Kiushu. p. 53, 1952.

Hab. II, III. on *Trichosanthes bracteata* Voigt (*O-karasu-uri*). Amami-oshima Isl.: Nishinakama, Sumiyo-mura (Aug. 23, 1961, M.T., no. Oshima-217).

5. *Puccinia allii* (DC.) Rudolphi in Linnaea. IV, p. 392, 1892.

Hab. II, III. on *Allium tuberosum* Rottle (*Nira*) (*Cult.*). Amami-oshima Isl.: Koshuku, Nase-shi (Aug. 26, 1961, M.T., no. Oshima-218). Tokunoshima Isl.: Tokunoshima-machi (Mar. 25, 1961, M.T., no. Toku-78). Okierabu Isl.: China-machi (Mar. 19, 1961, M.T., no. Okierabu-81).

II, III. on *Allium scorodoprasum* var. *viviparum* Regel (*Nin-niku*) (*Cult.*). Tokunoshima Isl.: Tokunoshima-machi (Mar. 22, 1961, M.T., no. Toku-77). Okierabu Isl.: China-machi (Mar. 19, 1961, M.T., no. Okierabu-30).

6. *Puccinia canaliculata* (Schw.) Lagerheim in Tromsø Mus. Aarch. XVII, p. 51, 1894.

Hab. II. on *Cyperus polystachyos* Rottb. (*Igayatsuri*). Amami-Oshima Isl.: Nishinakama, Sumiyo-mura (Aug. 23, 1961, M.T., no. Oshima-203).

7. *Puccinia caricis-macrocephalae* Dietel in Ann. Myc. VIII, p. 306, 1910.  
Hab. II. on *Carex pumila* Thunb. (*Kobo-shiba*). Tokunoshima Isl.: Tokunoshima-machi (Mar. 25, 1961, M.T., no. Toku-82).
8. *Puccinia exhausta* Dietel in Engl. Bot. Jahrb. XXVIII, p. 283, 1900.  
Hab. III. on *Clematis grata* Wall. (*Kebotanzuru*). Okierabu Isl.: China-machi (Mar. 18, 1961, M.T., no. Okierabu-42).
9. *Puccinia juncelli* Dietel in Ann. Myc. VIII, p. 306, 1910.  
Hab. II, III. on *Juncellus serotinus* Clarke (*Mizu-gayatsuri*). Amami-oshima Isl.: Nishinakama, Sumiyo-mura (Aug. 22, 1961, M.T., no. Oshima-227).
10. *Puccinia kusanoi* Dietel in Engl. Bot. Jahrb. XXVII, p. 569 & pl. VII, figs. 14 & 15, 1899.  
Hab. II. on *Pleioblastus hindsii* Nakai (*Kanzan-chiku*). Amami-oshima Isl.: Koshuku, Nase-shi (Aug. 26, 1961, M.T., no. Oshima-228).
11. *Puccinia lactucae-repentis* Miyabe et T. Miyake ex P. & H. Sydow in Ann. Myc. XI, p. 96, 1913.  
Hab. O, I. on *Ixeris repens* A. Gray (*Hama-nigana*). Tokunoshima Isl.: Tokunoshima-machi (Mar. 25, 1961, M.T., no. Toku-89).
12. *Puccinia lepturi* Hiratsuka, f. in Transact. Sapporo Nat. Hist. Soc. XVII, p. 28, 1941.  
Hab. II, III. on *Lepturus repens* R. Br. (*Hai-shiba*). Tokunoshima Isl.: Tokunoshima-machi (Mar. 25, 1961, M.T., no. Toku-90).
13. *Puccinia levigata* (Syd. et Butl.) Hiratsuka, f. apud Hiratsuka, f. & Yoshinaga in Mem. Tottori Agric. Coll. III, p. 315, 1935.  
Hab. II. on *Oplismenus compositus* (L.) Beauv. (*Edauchi-chijimizasa*). Amami-oshima Isl.: Agina, Setouchi-machi (Aug. 21, 1961, M.T., no. Oshima-229).
14. *Puccinia miyoshiana* Dietel in Engl. Bot. Jahrb. XXVII, p. 569 & pl. VII, figs. 16 & 17, 1899.  
Hab. II. on *Eccoilopus cotulifer* (Thunb.) A. Camus (*Abura-susuki*). Amami-oshima Isl.: Uragami, Nase-shi (Aug. 26, 1961, M.T., no. Oshima-231). Tokunoshima-machi (Mar. 25, 1961, M.T., no. Toku-93). Okierabu Isl.: China-machi (Mar. 18, 1961, M.T., no. Okierabu-52).
15. *Puccinia oahuensis* Ellis et Everhart in Bull. Torrey Bot. Club. XXII, p. 425, 1895.  
Hab. II, III. on *Digitaria violascens* Link. (*Aki-meishiba*). Amami-oshima Isl.: Koniya, Setouchi-machi (Aug. 20, 1961, M.T., no. Oshima-233). Tokunoshima Isl.: Tokunoshima-machi (Mar. 22, 1961, M.T., no. Toku-94).
- II, III. on *Digitaria adscendens* (H.B.K.) Henr. (*Meishiba*). Okierabu Isl.: Wadamari-machi (Mar. 17, 1961, M.T., no. Okierabu-53).
- II, III. on *Digitaria henryi* Rendle (*Henri-meishiba*). Okierabu Isl.: Wadamari-machi (Mar. 17, 1961, M.T., no. Okierabu-54).
16. *Uredo psychotricola* Hennings in Hedwigia. XXIV, p. 321, 1895.  
Hab. II. on *Psychotria rubra* Poir. (*Ryukyu-aoki*). Tokunoshima Isl.: Mt. Inokawa-dake (Mar. 23, 1961, M.T., no. Toku-107). Okierabu Isl.: China-machi (Mar. 18, 1961, M.T., no. Okierabu-75).
17. *Aecidium elaeagni* Dietel in Hedwigia. XXXVII, p. 212, 1898.  
Hab. O, I. on *Elaeagnus glabra* Thunb. (*Tsuru-gumi*). Amami-oshima Isl.: Agina, Setouchi-machi (Aug. 21, 1961, M.T., no. Oshima-242); Nishinakama, Sumiyo-mura (Aug. 22, 1961, M.T., no. Oshima-243). Tokunoshima Isl.: Mt. Amagi-dake (Mar. 25, 1961, M.T., no. Toku-108). Okierabu Isl.: China-machi (Mar. 20, 1961, M.T., no. Okierabu-71).
18. *Aecidium hornotinum* Cummins in Ann. Myc. XXXI, p. 103, 1937.  
Hab. O, I. on *Meliosma rhoifolia* Maxim. (*Yanbaru-awabuki*). Tokunoshima Isl.: Mt. Inokawa-dake (Mar. 23, 1961, M.T., no. Toku-109).

## Résumé

1. The junior writer Masao TAMORI collected specimens of rust fungi in Amami-oshima, Tokuno-shima and Okierabu-Shima in March and August 1961.
2. Making researches on the specimens, 18 species of them have been found to be added newly to the rust fungi flora in Amami-oshima.
3. Therefore, it has been identified that there are 154 species of rust fungi in Amami Islands, which consist of 108 species found in 1955, 25 species in 1956-1961 and 18 species mentioned above.

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3. — 1952 Uredinales of Kiushu. (Mem. Facul. Agric. Tokyo Univ. Education. I: 1-95).
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9. — & Masao Tamori 1961 Uredinales of Yoron Island. (Sci. Bull. Agric., Home Econ. & Engin. Div. Univ. Ryukyus. no. 8: 151-155).

## 奄美群島のサビ菌フロラ補遺 (摘要)

島袋俊一・田盛正雄

1. この報文は、琉球列島の内の奄美群島のサビ菌フロラに新しく加えられるべき種類についてのべた。
2. 本群島のサビ菌類については、平塚直秀氏が 1937 年に 3 種、1940 年に同じく 3 種、1952 年に 8 種を記録した。1954 年に平塚直秀・島袋俊一・新納義馬氏らが 24 属 108 種を記録し、一応まとめた。その後平塚利子 (1958)、島袋俊一 (1961)、島袋俊一・田盛正雄 (1961) によってさらに 28 種追加した。
3. この報文では 1961 年 3 月と 8 月に筆者の 1 人田盛正雄が奄美群島中の沖永良部島、徳之島、奄美大島に採集したのから新しく 18 種を記録した。すなわち、*Melampsora* 1, *Phakopsora* 1, *Uromyces* 2, *Puccinia* 11, *Uredo* 1, *Aecidium* 2 である。
4. 前出の表にある如く結局奄美群島のサビ菌フロラとして今日までに判明せるものは 25 属 154 種である。