

八重山諸島における漂着果実と種子

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Hiroki NAKANISHI** : Drift Fruits and Seeds on the Coast of the Yaeyama Islands, Southernmost of Japan*

中西弘樹** : 八重山諸島における漂着果実と種子*

Introduction

Islands are certainly considered closed terrestrial ecosystems, but they are directly and indirectly influenced by sea currents, which continents are not. One of the most important influences is that disseminules are carried to islands by currents. The occurrence of pan-tropical coastal plants is a good example.

The present research is intended to describe the drift fruits and seeds of the Yaeyama Islands, the southernmost in Japan. These islands are covered with subtropical forests such as *Arundinaria yaeyamaensis*-*Castanopsisietum sieboldii* and *Quercetum miyagii* (NIRO et al. 1974, SUZUKI 1979), yet the forests and scrubs found along the coastal areas of the islands are of the same types as those found along the coasts throughout the tropical Pacific. The coastal vegetations of Yaeyama Islands may have been established by disseminules carried from the tropical regions by currents.

As observed by ISHII (1973, 1976) and NAKANISHI (1981, 1982), the Kuroshio Current carries seeds and fruits from southeastern Asia to coasts of the Japanese archipelago. These studies were made primarily on the Japanese mainland which belongs to the warm- and cool-temperate regions. Only few efforts have been made to record stranded seeds and fruits in a subtropical region of Japan, that is the Ryukyu Islands.

Area investigated

The Yaeyama Islands, situated between 24°05' and 24°40'N latitude and between 122°55' and 124°20'E longitude, lie about 200 km east of Taiwan (Fig. 1). This area is swept by the Kuroshio Current which is derived from the North Equatorial Current. The Island's climate is subtropical with a high humidity. The average annual

temperature is 23.3°C, while the annual rainfall averages 2,630 mm a year. In summer destructive typhoons often sweep over the Islands.

The collections for this study were made on the following islands: Ishigakijima (the largest of the Yaeyama Islands), Iriomotejima and Kohamajima. Drift frequently occurs on both the northern and the southern sides of Iriomotejima, the eastern side of Kohamajima and on the northern Ishigakijima. This distributional tendency may be due to the coastal topography and coastal currents.

List of fruits and seeds

Fifty-two species whose disseminules were

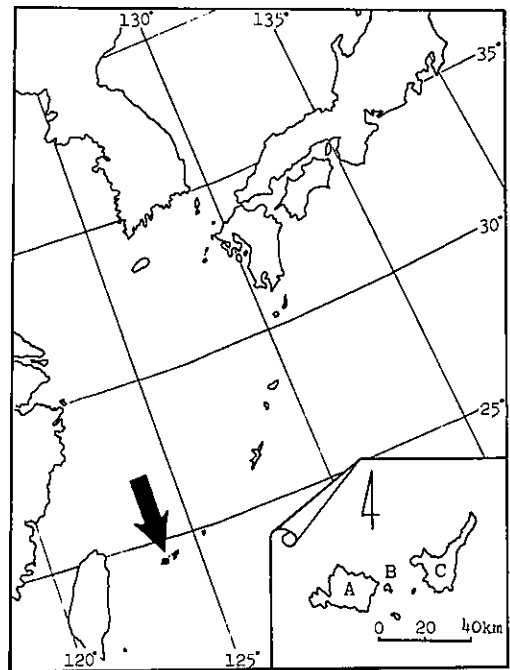


Fig. 1. Map showing the locality investigated.
A : Iriomotejima, B : Kohamajima, C :
Ishigakijima.

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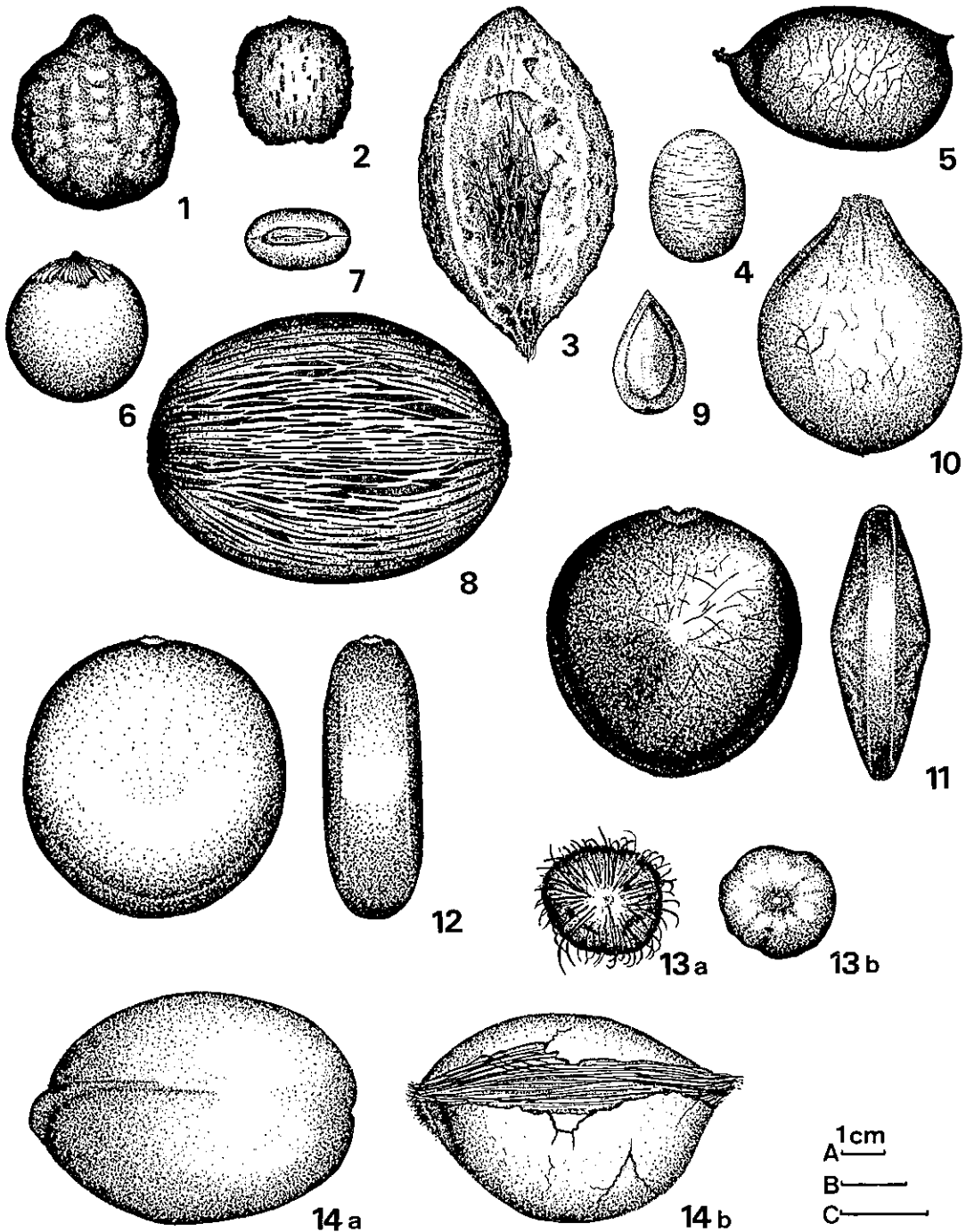


Fig. 2. Drift fruits and seeds in the Yaeyama Islands. 1. *Aleurites moluccana* (L.) Willd., 2. *A. montana* Wilson, 3. *Barringtonia racemosa* (L.) Spreng., 4. *Caesalpinia bonduc* (L.) Roxb., 5. *C. crista* L., 6. *Calophyllum inophyllum* L., 7. *Canavalia maritima* Thou., 8. *Cerbera lactaria* Ham., 9. *Clerodendron inerme* (L.) Gaertn., 10. *Cycas revoluta* L., 11. *Entada parvifolia* Merr., 12. *E. phaseoloides* (L.) Merr., 13. *Guettarda speciosa* L.: a. eroded, b. entire, 14. *Heritiera littoralis* Dryand: a. entire, b. damaged. (Fig. 1-6, 9-14: scale B; Fig. 7: scale C; Fig. 8: scale A).

found in the drift, are classified and are described. Five specimens, one of which belongs to the Euphorbiaceae and two to the Leguminosae, could not be identified. Most of these specimens were collected by the author and a few by Mr. H. CHUJYO of Hiroshima University.

The drift disseminules collected were divided into the following four categories based on their frequency: M (abundant): more than one disseminule per 10 m length of coastline; C (common): one disseminule per 10 to 100 m; R (rare): one disseminule per 100 to 1,000 m; VR (very rare): one disseminule per more than 1,000 m.

1. *Aleurites moluccana* (L.) WILLD. (Fig. 2-1)
Jap. name: Kukuinoki, Frequency: R

This black seed is occasionally found in the drift, but the tree is not found in the islands. The drift seeds had echinoderms and some algae growing on them.

2. *A. montana* WILSON (Fig. 2-2)
Jap. name: Shinaaburagiri, Freq.: R

This species is not known in the islands, but its seeds are sometimes washed ashore on the beaches. Drift seeds of this species are also known in the mainland of Japan.

3. *Atriplex maximowicziana* MAK.
Jap. name: Miyakojima-hamaakaza, Freq.: VR

This plant usually grows on drift line of the islands. Some seedlings of the plant were found in the drift.

4. *Barringtonia asiatica* (L.) KURZ.
Jap. name: Gobannoashi, Freq.: C

The fruit of this species is common in the drift, nevertheless the plant is very rare in the islands. Most of its drift fruits are considered to have been carried from more southerly areas such as Taiwan and the Philippines. Most of the fruits seem to be unsound.

5. *B. racemosa* (L.) SPRENG. (Fig. 2-3)
Jap. name: Sagaribana, Freq.: C

Fruits of this species, containing sound seeds, are common in the drift. This tree commonly grows in the lowland of Iriomote Island. Most of the drift fruits may have been derived from plants growing on that island.

6. *Bruguiera gymnorrhiza* (L.) LAMK.
Jap. name: Ohirugi, Freq.: C

This mangrove species is abundant in the

estuary and inlet of the islands. The radicles found in the drift are variable in length, the longest is about 30 cm.

7. *Caesalpinia bonduc* (L.) ROXB. (Fig. 2-4)
Jap. name: Shirotsubu, Freq.: VR

One seed and one pod with a sound seed of this species were found. This climber rarely occurs in the coastal forest of the islands, however drift seeds of this plant are also known in Europe (NELSON 1978) and the United States (GUNN & DENNIS 1973).

8. *C. crista* L. (Fig. 2-5)
Jap. name: Nantenkazura, Freq.: A

The black pod of this plant is quite common in the drift, Most of which contained sound seeds. Only one naked seed was collected. The plant grows in the coastal forest of the islands.

9. *Calophyllum inophyllum* L. (Fig. 2-6)
Jap. name: Terihaboku, Freq.: C

The spherical fruit of this tree species which is abundant along the shores of the islands, is common in the drift. Some of the seeds were sound.

10. *Canavalia cathartica* THOU.
Jap. name: Takanatamame, Freq.: VR

The seed of this species is similar to that of the next species in shape, but can be distinguished by its different color, brown or yellowish brown. The plant is rather frequent in the islands.

11. *C. maritima* THOU. (Fig. 2-7)
Jap. name: Nankai-hamanatamame, Freq.: VR

Reddish brown beans of this plant were picked up in the drift. They were apparently sound. The plant is not common on beaches of the islands.

12. *Cardiospermum halicacabum* L.
Jap. name: Fusenkazura, Freq.: VR

One sound seed of this species was collected in the drift on Ishigakijima Island. The seed is difficult to find in the drift because of its small size. The plant is not common in the islands.

13. *Casuarina equisetifolia* L.
Jap. name: Mokumaoh, Freq.: C

Cones of this tree are common in the drift, but most of them have no seeds. This species is planted on the beach of the islands. Some seedlings could be observed in the drift line.

14. *Cerbera lactaria* Ham. (Fig. 2-8)
Jap. name: Mifukuragi (Okinawakyochikuto),
Freq.: A

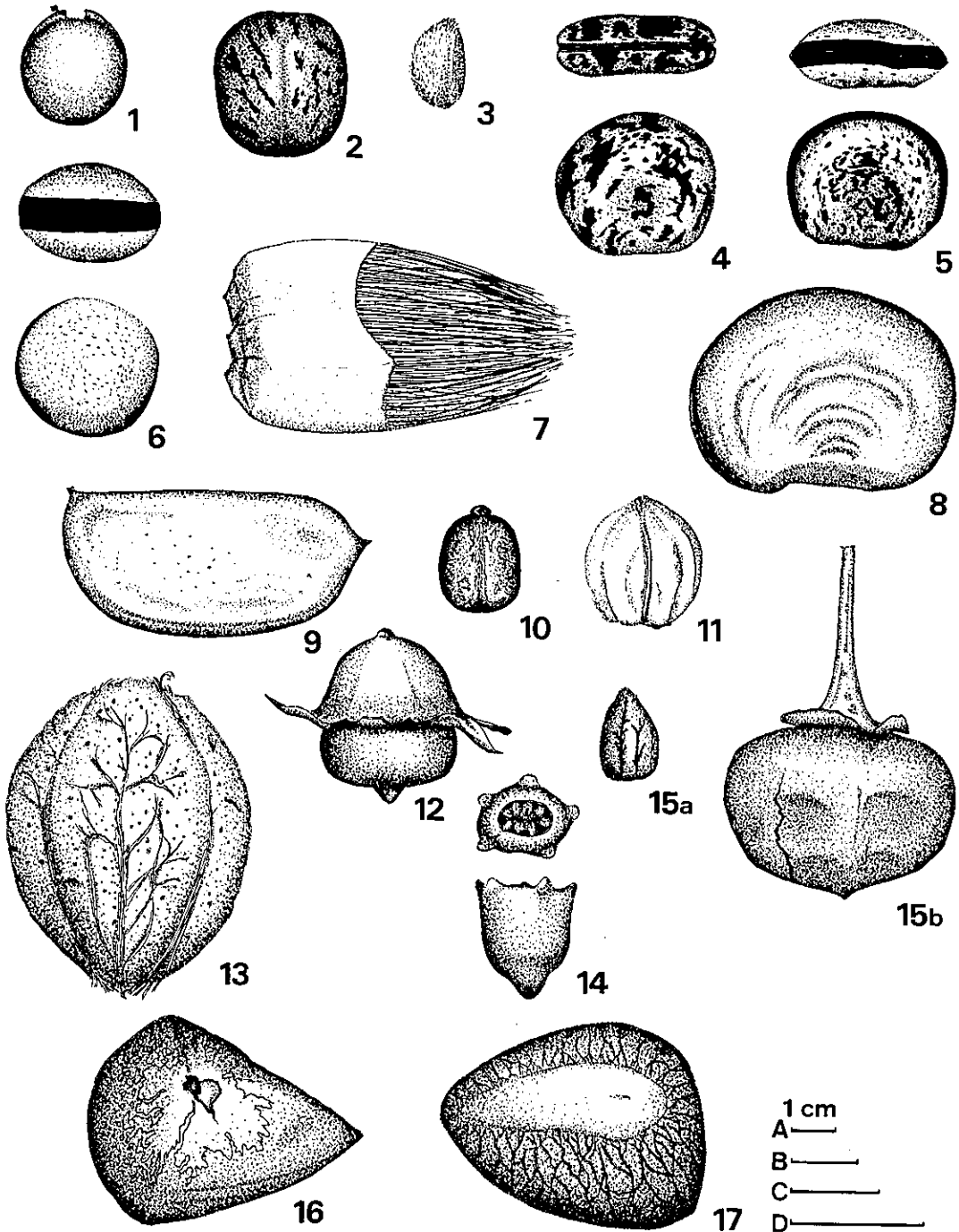


Fig. 3. Drift fruits and seeds in the Yaeyama Islands. 1. *Hernandia sonora* L., 2. *Hevea brasiliensis* MUELL. ARG., 3. *Ipomoea pes-caprae* (L.) SWEET, 4. *Mucuna gigantea* (WILLD.) DC., 5. *M. nigricans* (LOUR.) STEUD., 6. *M. urens* (L.) MEDIKUS, 7. *Pandanus odoratissimus* L. f., 8. *Pithecellobium jiringa* PRAIN., 9. *Pongamia pinnata* (L.) PIERRE, 10. *Ricinus communis* L., 11. *Scaevola taccada* (GAERTN.) ROXB., 12. *Sonneratia alba* SM., 13. *Terminalia catappa* L., 14. *Tetragonia tetragonoides* (PALL.) O. K., 15. *Thespesia populnea* (L.) SOLAND: a. seed, b. fruit, 16. *Xylocarpus granatum* KOENING, 17. *X. moluccanus* M. ROEM. (Figs. 1, 2, 4-10, 12, 15 b, 17: scale B; Figs. 14, 15 a: scale C; Figs. 3, 11: scale D; Figs. 13, 16: scale A).

Fruits of this species are abundant in the drift. The exocarp was usually eroded and the fibrous mesocarp was exposed. The drift fruits varied in size. The plant occurs in the islands, but the fruits do not become so large. Some drift fruits may be derived from the islands, but others are considered to have been transported from the southern islands. *C. manghas* may have also been carried to the islands.

15. *Clerodendron inerme* (L.) GAERTN. (Fig. 2-9)

Jap. name: Ibotakusagi, Freq.: A

Pieces of fruit, with seemingly sound seed, were picked up in the drift. This shrub is commonly growing in the littoral area of the islands.

16. *Cocos nucifera* L.

Jap. name: Kokoyashi, Freq.: C

This palm is sometimes planted in the islands, but the drift coconuts seem to have been carried from the south by the ocean current. Most of nuts are sound and seedlings of this species are rarely found.

17. *Coix lachryma-jobi* L.

Jap. name: Jyuzudama, Freq.: VR

Some seeds of this species were picked up in the drift. These seeds may have been derived from the islands.

18. *Crinum asiaticum* L.

Jap. name: Hamaomoto, Freq.: R

This plant commonly grows on beaches of the islands. Some drift seeds had already germinated.

19. *Cycas revoluta* L. (Fig. 2-10)

Jap. name: Sotetsu, Freq.: C

This species is common in the littoral area of the islands. The drift seed seems to be sound.

20. *Diospyros maritima* BL.

Jap. name: Ryukyugaki, Freq.: VR

One fruit of this tree was found in the drift. The plant rarely grows on the littoral woodland of the islands.

21. *Entada parvifolia* MERR. (Fig. 2-11)

Jap. name: Himemodama, Freq.: R

From the sharp and color, the drift beans of *Entada* represent two species. After the description of KANEHIRA (1936), the one which is ellipsoid, apiculate in center of both surfaces and brownish black, is *E. parvifolia*. This species is rarely found in the islands.

22. *E. phaseoloides* (L.) MERR. (Fig. 2-12)

Jap. name: Modama, Freq.: R

The other beans which is flattened and reddish brown may be *E. phaseoloides*. They are usually about 4 cm in diameter, but sometimes reaches 5.5 cm.

23. *Garcinia mangostana* L.

Jap. name: Mangosuchin, Freq.: VR

One fruit of this species, with unsound seeds, was found in the drift. The fruit may have been discarded into the ocean from ships in the tropical region. Drift fruits of this plant are rarely found on the beaches of Japanese mainland.

24. *Guettarda speciosa* L. (Fig. 2-13)

Jap. name: Haterumagiri, Freq.: R

Several fruits were picked up in the drift. They have sound seed. The tree is common in the littoral woodland of the islands.

25. *Heritiera littoralis* DRYAND (Fig. 2-14)

Jap. name: Sakishimasuounoki, Freq.: C

Fruits of this plant are common in the drift. Most of them may be unsound. Some were bored by marine invertebrates. Rarely is the tree found in the islands and the drift fruits are considered to have been transported from the south.

26. *Hernandia sonora* L. (Fig. 3-1)

Jap. name: Hasunohagiri, Freq.: C

This is the most common tree in the littoral woodland of the islands, but fruits are comparatively few in the drift. All fruits had sound seeds.

27. *Hevea brasiliensis* MUELL. ARG. (Fig. 3-2)

Jap. name: Paragomunoki, Freq.: VR

Only one seed of this species was found in the drift. The seed is ellipsoidal and has a single prominent groove on the face. This tree is not cultivated in Japan.

28. *Hibiscus tiliaceus* L.

Jap. name: Oohamabo, Freq.: R

This shrub is one of the most common species in the littoral woodland of the islands. Their drift seeds are apt to be overlooked because of their small size.

29. *Ipomoea pes-caprae* (L.) SWEET (Fig. 3-3)

Jap. name: Gunbai-hirugao, Freq.: C

This plant is very common on the beach of the islands, nevertheless only a few seeds were picked up in the drift. Seedlings of this species are commonly found in the drift line.

30. *Juglans* sp.

Jap. name : Kurumi, Freq. : R

Several stones of *Juglans* were found in the drift. No species of *Juglans* is known in the islands. Drift walnut is also found in the mainland of Japan.

31. *Messerschmidia argentea* (L. f.) JOHNSTON

Jap. name : Monpanoki, Freq. : C

The fruit is about 5 mm in diameter, and difficult to find in the drift. This plant commonly grows on beaches of the islands, from which drift fruits have been derived.

32. *Mirabilis jalapa* L.

Jap. name : Oshiroibana, Freq. : VR

This is a garden plant, but often grows wild on beaches. Two seeds were picked up in the drift.

33. *Mucuna gigantea* (WILLD.) DC. (Fig. 3-4)

Jap. name : Waniguchimodama, Freq. : R

Beans of this species, which are reddish brown with black spots or blackish brown, are more frequent than those of the next *Mucuna* species in the drift. The width of the filum is 1-2 mm. The seeds are apparently sound. The distribution pattern of this species along coastal areas is of the palaeotropic type (TATEISHI & OHASHI 1981). The Islands are the northern extrimity of its distribution.

34. *M. nigricans* (LOUR.) STEUD. (Fig. 3-5)

Jap. name : Kasyokuzumame (Haneminomodama), Freq. : R

Beans, apparently sound, were picked up in the drift. Like the preceding species, the filum of this bean occupies about three-fourth of the seed circumference, that is 4-5 mm in width. This liana plant grows in littoral woodlands of the islands.

35. *M. urens* (L.) MEDIKUS (Fig. 3-6)

Jap. name : absent, Freq. : VR

One sound seed belonging to *Mucuna* was picked up in the drift. This seed is 23 mm in diameter, 16 mm thick and reddish brown with a grayish border around the filum. The filum is black, and 4-6 mm broad. This plant is not found in the islands.

36. *Nypa fruticans* WURMB.

Jap. name : Nippa-yashi, Freq. : R

The fruit of this palm is rarely found in the drift. It was occasionally germinating and had dried up. Iriomotejima Island is the northernmost locality of the palm, where it does not bear

normal fruits. The drift fruits were transported from the south.

37. *Pandanus odoratissimus* L. f. (Fig. 3-7)

Jap. name : Adan, Freq. : A

Pieces of fruit, with sound seeds, are abundant in the drift. Seedlings derived from such drift fruits are commonly found on beaches. The scrub of this species is dominantly developed on beaches of the islands.

38. *Pithecellobium jiringa* PRAIN. (Fig. 3-8)

Jap. name : Jirinmame, Freq. : VR

Three beans belonging to this species were collected in the drift. The plant is not found in the islands. The seed has a narrow filum occupying about two-thirds of the seed circumference. This tree is distributed in southeastern Asia.

39. *Pongamia pinnata* (L.) PIERRE (Fig. 3-9)

Jap. name : Kuroyona, Freq. : C

Pods with sound seeds are common in the drift. It is often found germinating. This plant is commonly found on beaches of the islands.

40. *Quercus miyagii* KOIDZ.

Jap. name : Okinawaurajirogashi, Freq. : VR

Acorns of this species, which are the largest among Japanese *Quercus* species, are stranded along the shores, but are not sound. This tree is restricted to the mountainous district of the islands.

41. *Raphanus sativus* L. var. *hortensis* f. *raphanistroides* (MAK.) MAK.

Jap. name : Hamadaikon, Freq. : VR

Pieces of fruit, with sound seeds, are found in the drift. This plant grows on beaches on the islands.

42. *Rhizophora stylosa* GRIFF.

Jap. name : Obahirugi (Yaeyamahirugi), Freq. : R

This mangrove plant is abundantly found in the islands, but the stranded radicles are comparatively few in number.

43. *Ricinus communis* L. (Fig. 3-10)

Jap. name : Tougoma, Freq. : VR

Seeds of this species were rarely picked up in the drift. The plant is not found in the islands except for the seedlings growing on the beaches.

44. *Scaevola taccada* (GAERTN.) ROXB. (Fig. 3-11)

Jap. name : Kusatobera, Freq. : A

Small fruits, with sound seed, were stranded along the drift line. This species grows abundant-

ly on the beaches of the islands.

45. *Sonneratia alba* SM. (Fig. 3-12)

Jap. name: Mayapushigi (Hamazakuro), Freq.: VR

A mangrove plant distributed in the islands. The fruit is very rare in the drift and may be unsound.

46. *Sophora tomentosa* L.

Jap. name: Isofuji, Freq.: VR

The seed of this species is about 8 mm, with the filum, of 2-3 mm in length. It is very difficult to find in the drift. These beans were probably derived from the shrubs which grow on the islands beaches.

47. *Terminalia catappa* L. (Fig. 3-13)

Jap. name: Momotamana (Kobateishi), Freq.: C

Fruits of this species, with seeds appearing sound, are common. The tree grows along the shore of the islands. Some of the fruits in the drift come from these tree, but others, with larger fruits, are considered to have been transported from the south.

48. *Tetragonia tetragonoides* (PALL.) O. K. (Fig. 3-14)

Jap. name: Tsuruna, Freq.: VR

Stranded fruits of this plant are rarer in the islands than in the mainland of Japan. The plant is widely distributed in Japan.

49. *Thespesia populnea* (L.) SOLAND. (Fig. 3-15)

Jap. name: Sakishimahamabo, Freq.: R

Two fruits with sound seeds and some seeds of this species were found in the drift. It is very probable that these disseminules fell from the trees growing in the islands. This species is distributed along the pantropical coasts.

50. *Vigna marina* (BURM.) MERR.

Jap. name: Hamasasage, Freq.: R

This prostrate plant is common on beaches of the islands, but the beans are small-sized and were only rarely found. The seed is ellipsoidal, yellowish brown, and 6 mm in length.

51. *Xylocarpus granatum* KOENING (Fig. 3-16)

Jap. name: Houganhirugi, Freq.: VR

The drift seeds collected vary in size and are usually broken and unsound. The plant is not distributed in Japan.

52. *X. moluccanus* M. ROEM. (Fig. 3-17)

Jap. name: Nirisuhougan, Freq.: VR

One large seed, probably unsound, was picked

up in the drift. This species, which grows in the mangrove swanp, is not found in the islands.

Conclusion and Discussion

Many of the drift fruits and seeds described in this study may be derived from plants growing along the beaches of the islands, but other may be considered to have been transported from the south. Most of the disseminules found in the drift had sound seeds. KERR (1930) reported 50 species from the drift fruits and seeds in Kaw Tao Island, Thailand. About 50 % of the drift disseminules species reported from Kaw Tao were also found in the Yaeyama Islands. Most of the disseminules collected from Viti Levu, Fiji Islands by Mrs. CLOCKER (GUNN and DENNIS 1976) were the same as the species reported here.

The familial composition of the drift fruits and seeds is presented (Fig. 4). Species of the Leguminosae are most frequent, occupying 26 % of all the drift disseminules, followed by species of the Euphorbiaceae. The plants of Leguminosae have seeds adapted to permitting their natural transport by sea. These seeds have hard coats which are impermeable to sea water and a space between the cotyledons which permits the seeds to float.

Many of the plants whose disseminules were found in the drift are of the palaeotropical type

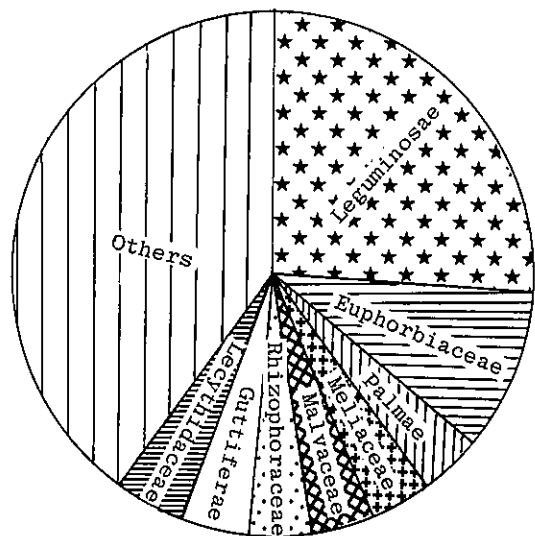


Fig. 4. Proportion of drift disseminules found in the Yaeyama Islands by family.

and the pantropical type.

The palaeotropical type includes *Barringtonia asiatica*, *B. racemosa*, *Calophyllum inophyllum*, *Clerodendron inerme*, *Crinum asiaticum*, *Entada parvifolia*, *E. phaseoloides*, *Guettarda speciosa*, *Heritiera littoralis*, *Hernandia sonora*, *Mucuna nigricans*, *Nypa fruticans*, *Pongamia pinnata*, *Scaevola taccada*, *Terminalia catappa*, *Xylocarpus granatum* and others. The pantropical type include *Caesalpinia bonduc*, *Cocos nucifera* (cultivated), *Hevea brasiliensis* (cultivated), *Hibiscus tiliaceus*, *Ipomoea pes-caprae*, *Thespesia populnea* and others. Such wide distributions of these species types are due to their disseminules which are suited for ocean driftage. Some disseminules have fibrous and/or corky mesocarpe for buoyancy and the others have seeds surrounded by hard coat which protect their embryo from the harm of sea water.

The coastal vegetation of the Yaeyama Islands consists of *Hernandia sonora* forest, *Guettarda speciosa* scrub, *Hibiscus tiliaceus* scrub, *Pandanus odoratissimus* community, *Canavalia maritima* community, *Ipomoea pes-caprae* community and others. Some of these communities on the islands constitute the northern extremity of their distribution. One of the noteworthy features of such vegetation is the great development of the typical member of the tropical strand plants. Most of the disseminules of these strand plants were found in the drift. Sea-dispersal has contributed to the develop of the coastal vegetation in the islands.

Summary

Drift fruits and seeds were collected on coasts of the Yaeyama Islands, the southernmost islands of Japan. Fifty-two species of disseminules which were washed ashore on beaches of the islands were described. Most of the fruits and seeds of these species are also found in the drift of tropical islands. Many of the disseminules found may have been derived from plants growing on the Yaeyama Islands, the others may have been transported from the tropical region by the Kuroshio Current. The development of the coastal vegetation of the Yaeyama Islands has been promoted by the disseminules transported by sea currents.

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References

- GUNN, C. R. & J. V. DENNIS, 1973. Tropical and temperate stranded seeds and fruits from the Gulf of Mexico. *Contr. Marine Sci.* 17: 111-122.
- & ———, 1976. *World Guide to Tropical Drift Seeds and Fruits*. 240 pp. The New York Times Book Co., New York.
- ISHII, T. 1973. A driftage in the northern coast of Kyusyu, Japan*. *Collecting and Breeding* 35: 14-24, 48.
- , 1976. The sequel of a driftage in the northern coast of Kyusyu Japan. 2*. *Collecting and Breeding* 38: 27-32, 41-45.
- KANEHIRA, R. 1936. *Formosan Trees* (revised ed.). 754 pp. Yokendo, Tokyo.
- KERR, A. 1930. Fruit and seeds in the drift on Kaw Tao. *Jour. Siam Soc. Nat. Hist. Suppl.* 8: 103-117.
- NAKANISHI, H. 1981. Notes on tropical drift fruits on the coast in Japan. *Jour. Phytogeography and Taxonomy* 29: 67-69.
- , 1982. Drift fruits of *Cocos nucifera* L. and *Nypa fruticans* Wurm in Japan. Dispersal by ocean currents (2)*. *Seed Ecology* 13: 7-10.
- NELSON, E. C. 1978. Tropical drift fruits and seeds on coasts in British Isles and western Europe, 1. Irish beaches. *Watsonia* 12: 101-112.
- NIRO, Y., Y. MIYAGI, K. SHINJO & H. SHIMABUKURO, 1974. Vegetation of the Yaeyama Islands**. *Ecol. Study Nat. Cons. Ryukyu Isl.*, 1: 5-36.
- SUZUKI, K. 1979. Vegetation der Ryukyu-Inseln, Japan. *Pflanzensoziologische Studien der*

Ryukyu-Inseln VI**. Bull. Inst. Environmental Science and Technology, Yokohama National Univ. 5: 87-160.

TATEISHI, Y. & H. OHASHI, 1981. Eastern asiatic species of *Mucuna* (Leguminosae). Bot. Mag. Tokyo 94: 91-105.

(* in Japanese, ** in Japanese with English or German summary)

摘 要

八重山諸島において海岸に漂着した果実と種子52種類を報告した。これらの散布体の多くは、八重

山諸島に自生している植物から生じたものであるが、南方から黒潮に運ばれて来たものも少ない。散布体は繊維質に富んだ中果皮や、コルク質を持つ果実、あるいは硬い種皮に被われた種子など海流散布に適した構造をしている。記録された植物は、旧熱帯あるいは汎熱帯の海岸域に広く分布する種が多く、科別ではマメ科植物が最も多く、次いでトウダイグサ科であった。八重山諸島の海岸植生の構成種は、熱帯の海岸植生と共通種が多く、その発達は海流散布が大きな役割を果たしていると考えられる。

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○ “石川県植物誌”に発表した新名(里見信生) Nobuo SATOMI: New Names in “Ishikawaken Syokubutsushi”.

石川県には全県的にまとまった植物誌が発行されていなかったが、このたび、石川県環境部の御厚意により出版することができた。この中で下記の新名が生じたので、ここに再録する。

1) *Omphalodes krameri* FRANCH. et SAVAT. var. *laevisperma* (NAKAI) OHWI form. *albiflora* SATOMI, form. nov.

Flores albi.

Nom. Jap. Shirobana-echigo-rurisō.

Hab. Honshu: Kawachi-mura, Ishikawa Pref. (S. KOMAKI; 1961; Holotype in KANA).

2) *Polygonum cuspidatum* SIEB. et ZUCC. var. *uzenensis* (HONDA) OKUYAMA form, *rosea* SATOMI, stat. nov.

Reynoutria japonica HOUTT. var. *uzenensis* HONDA form, *rosea* SATOMI in Journ. Geobot. 11: 52 (1962).

3) *Vitex rotundifolia* LINN. fil. form. *rosea* SATOMI, form. nov.

Flores rosei.

Nom. Jap. Momoiro-hamagō.

Hab. Honshu: Shioya, Kaga-city, Ishikawa Pref. (N. SATOMI, 1982; Holotype in KANA).

○ 池上義信(監修)・石沢 進(編集), 新潟県植物分布図集第3集 コーエイ印刷株式会社(〒950 新潟市姥ヶ山1488-4, 振替口座新潟1-5599), 昭和57年12月20日発行。A4版, 438頁(内モノクロ写真24頁)。定価5,500円(送料500円)。

第1集(1981), 第2集(1982)に引続き刊行された。第2集同様取扱った種類数は100である。したがって、1~3集合計して250種の分布図が発表された。4集以後の発刊に向けて益々の御精励を期待申し上げる。

○ 品川鉄摩著: 壹岐の植物 壹岐文化協会(〒811-51 長崎県壹岐郡郷ノ浦町), 昭和58年6月1日発行。B5版, 190頁。

本書は著者の満80歳、傘寿を記念し、長年に亘る研究業績を一書にまとめたものである。内容はIII部からなり、第I部では壹岐の植物分布・研究小史・高等植物目録・名木巨樹・天然記念物など、壹岐全域に及ぶものを集録し、第II部ではスキヤクジャク・キビヒトリシズカなど、著者が日本ではじめて発見した種類についての論文をまとめ、第III部では著者の発見された新植物・新産地についての報告を再録してある。

○ 衣川幸三・内藤登喜夫共著: 京都府下の山野草 暹日草舎(〒603 京都市北区鷹峰南鷹峰町22-9, 振替口座京都9-20010), 昭和58年3月3日発行, B5版, 238頁。定価6,800円。

内容は書名のとおりに、京都府下一円の野や山で容易に目につく草本500種を撰び、収録している。写真はカラーで、写真歴約20年の本会々員内藤登喜夫氏が撮影したもので、それに衣川幸三氏が解説している。