A Blank Topographical Map of Japan, with Explanatory Maps of the Izu-Ogasawara Islands and the Southwest Islands for the Chorological Study of Planarians

Introduction

The Japanese Islands consist of 4 main islands (Hokkaido, Honshu, Shikoku and Kyushu) and many small islands. The two groups of small islands located in the southward direction from Tokyo are called the Izu Islands (Izu Shoto or Izu Souto in Japanese) and the Ogasawara Islands (Ogasawara Shoto or Ogasawara Souto in Japanese). Another group of small islands, those arranged in a great arc between the southernmost part of Kyushu in Southern Japan and Taiwan, is called the Southwest Islands of Japan (Nansei Shoto or Nansei Souto in Japanese). Although the general English name of the 'Southwest Islands of Japan' is not found in atlases, Kawakatsu employed this expression in his ecological and taxonomic papers on planarians for many years (Ichikawa & Kawakatsu, 1967; Tamura, Oki & Kawakatsu, 1991, fig. 2 on p. 160).

In various atlases published in Western countries, the explanation of names of these archipelagos and of individual islands is incomplete and errors or misunderstandings also occur.

The English versions of the most common topographical maps published in Japan that show the above-mentioned Islands are those for 'Central Japan' and 'South Japan' issued by the Geographical Survey Institute, Japan (scale 1: 1,000,000; revised in 1993). In these maps, names of islands are shown in Roman letters according to the Instructive System of spellings. However, many taxonomists employ the Hepburn System for romanization of Japanese place names in their English papers (see Appendix I).

Recently, a new marine triclad species from Ishigaki-jima Island (in the Southwest Islands) and a new land planarian species from Chichi-jima Island (in the Ogasawara Islands) were described (cf. Sluys & Kawakatsu, 2004; Kawakatsu, Sluys & Ogren, Ms.; see also Kawakatsu, Okochi, Sato, Ohbayashi, Kitagawa & Totani, 1999). Several species of Acoela reported from the Southwest Islands (Yamasu, 1982; Yamasu & Okazaki, 1987) were also discussed in a recent web article by Faubel, Kawakatsu, Froehlich, Jones & Sasaki (2004). Refer to the type localities of these species seem to be quite difficult for Western taxonomists using Western atlases.

Kawakatsu (1985: 80-84, figs. 1 and 2) published an article titled 'The Old and Present Administrative Divisions of Japan' as Part II of 'A List of Publications on Japanese Turbellarians (1984)' (Bull. Fuji Women's College, no. 23, ser. II, pp. 67-84). This article is useful for understanding old locality names in Japan that were frequently used in old taxonomic papers on planarians. Unfortunately, Bull. Fuji Women's College has a very limited distribution, and not many Western taxonomists have had access to it. To ameliorate this problem, the above-cited article is reproduced in the present web article (pp. 5-9 with Figs. 1 and 2).

Next, a blank topographical map of Japan is given for use in basic research on planarian chorology (Fig. 3). Topographical maps of the Izu-Ogasawara Islands (Fig. 4) and the Southwest Islands of Japan (Fig. 5) are also given, together with the names of individual islands and island groups.
Islands

1). The Izu-Ogasawara Islands
Many volcanic islands belonging to the Fuji Volcanic Zone are distributed southwards from Tôkyô Bay (approximately 1200 km in extent). They consist of two groups of islands: the Izu Islands and the Ogasawara Islands.

i) The Izu Islands (Figs. 3, 4 ①-③)
The name of this group is shown in the National Geographic Atlas of the World (1981) as “Izu Shichito” (i.e., ‘7 islands of Izu’ in Japanese). The map of ‘Central Japan’ (Geographical Survey Inst., Japan, 1993) uses the name “Izu Syotō” (i.e., ‘Izu Islands’ in Japanese).


ii) The Ogasawara Islands (Figs. 3, 4 ①,④,⑤)
The name of this chain is shown in the National Geographic Atlas of the World as “Bonin Islands (Nampô Shotô, Ogasawara Guntô)” (the former name in parentheses means ‘Southern Islands’; the latter, ‘Ogasawara Islands’). The Times Atlas of the World (1981) uses the name “Ogasawara guntô (Bonin Is.)”. The map of ‘Central Japan’ (Geographical Survey Inst., Japan, 1993) uses the name “Ogasawara Syotô”. It is believed that ‘Bonin’ originated from a mishearing of the Japanese pronunciation of ‘Munin-tô’ (i.e., uninhabited island(s)).

The Ogasawara Islands have a rather wide geographical scope: 24°12´-27°45´ N, 140°50´-142°15´ E. They consist of four groups of islands: (i) the Mukojima Islands (=Parry Group: Mukojima Is., Nakaudo-jima Is., Yome-shima Is.): (ii) the Chichijima Islands (=Beechey Islands: Magojima Is., Otôto-jima Is., Anijima Is., Nishijima Is., Chichi-jima Is.): (iii) the Hahajima Islands (Haha-jima Is. – also called Coffin Is. or Baily Is., Mukai-jima Is., Imoto-ji ma Is., Mei-jima Is., Anejima Is.); and (iv) the Iō Islands (also called the Volcano Islands: Kita-iō-jima Is., Iō-jima Is., Minami-iō-jima Is.).

2). The Southwest Islands of Japan
The Southwest Islands are an English translation of the Japanese name ‘Nansei Shotô’. In the National Geographic Atlas of the World (1981), these islands are shown as the “Ryukyu Islands” (“Nansei Shotô”; “Amami Guntô” and “Okinawa Guntô” are also used. In the Times Atlas of the World (1981), “Ryûkyû Rettô” (“Amami guntô” and “Okinawa guntô”) is used. These names for the respective island group represent from the strict topographical viewpoint and the customary usage in Japan.

The Southwest Islands of Japan consist of two arcs: i) the Satsunan Islands, and ii) the Ryûkyû Islands. Administratively, the Senkaku Islands and the Daitô Islands are also included in the Southwest Islands of Japan.

i) The Satsunan Islands (Figs. 3, 5)
The Satsunan Islands consist of three groups of islands: (i) the Ōsumi Islands (Tane-ga-shima Is., Yaku-shima Is., Kuchi-no-erabu Is., etc.): (ii) the Tokara Islands (Kuch-no-shima Is., Naka-no-shima Is., Suhanose-jima Is., etc.): and (iii) the Amami Islands (Amami-Ōshima Is., Kikai-ji ma Is., Toku-no-erabu-jima Is., Oki-no-erabu-jima Is., etc.).

ii) The Ryûkyû Islands (Figs. 3, 5)
The Ryûkyû Islands consist of five groups of islands: (i) the Okinawa Islands (Okinawa Is., Iheya-jima Is., Zamami-jima Is. in the Kerama Islands, Kume-jima Is., etc.): (ii) the Miyako Islands (Miyako-jima Is., etc.): (iii) the Yaeyama Islands (Ishigaki-jima Is., Iriomote-jima Is., Yonaguni-jima Is., etc.). The Sakishima Islands are the general name of both the Yaeyama Islands and the Miyako Islands.

iii) The Other Islands (Figs. 3, 5)
The Senkaku Islands (Uotsuri-jima Is. and the other 4 small islands) are located approximately 160 km N of the Yaeyama Islands. The Daitô Islands (Kita-Daitô-jima Is., Minami-Daitô-jima Is., Oki-Daitô-jima Is.) are located approximately 360 km E of Okinawa Island. Geomorphologically, these two Islands are different from the Ryûkyû Islands.
Islands.

References

Related publications not cited in the text (*) are also listed here.

Articles

Kawakatsu, M., Sluys, R. & Ogren, R. E., Ms. Five new species of land planarian from Japan (Platyhelminthes, Tricladida, Bipaliidae), with a morphological review of all Japanese bipaliids and a biogeographic overview of Far Eastern species.

Atlases


Maps

Palaeogeographic Maps of Japan


Geographical Survey Institute, Japan. Central Japan; South Japan. International Versions. Scale 1: 1,000,000. Japanese Versions are also used. Geographical Survey Institute, Ministry of Construction, Japan.

*Geographical Survey Institute, 1997. [Japan and Its Neighbor Area]. Scale 1: 3,000,000. Geographical Survey Institute, Ministry of Construction, Japan. (In Japanese.)

Indices of Place Names in Japan


Papers Cited in ‘The Old and Present Administrative Divisions of Japan’ (on pp. 5-9)

Open the following URLs.
http://planarian.net/kswp/36/kaburaki.pdf
http://planarian.net/kswp/41/oldpaper.pdf

At the Bonin Islands. After Perry’s 1856 Book, ‘Expedition to Japan’.
THE OLD AND PRESENT ADMINISTRATIVE DIVISIONS OF JAPAN

The territory of Japan now consists of 47 administrative divisions or prefectures. They are also classified into 8 regions. This administrative system was employed by the Government at the beginning of the Meiji Era (1868-1871). Most of the names of these prefectures and of the prefectural seats are newly named about 100 years ago.

The old place-names in Japan have geographical and historical meanings. In other words, they were formed and fixed during the past 1500 or more years. Most of the present local names of places, rivers, lakes, and mountains originated from their historical background. In the Edo Era (1598-1868), Japan was divided into 7 local regions and approximately 85 possessions of clans supported by the feudalism. The possessions of each feudal lord or "Daimyō" were called after the old place-names of Japan. Thus, they are frequently used for the indication of local areas of Japan even today.

The old place-names of Japan above-mentioned do not appear in the maps or atlases of Japan written in foreign languages, such as "The Times Atlas of the World", "The Bartholomew's Graphic Atlas", etc. Some old descriptive papers on planarians (Stimpson, 1855, 1857; Ijima & Kaburaki, 1916; Kaburaki, 1922 a, b, c, and others) employed the old place-names of Japan for the indication of localities of their materials. The purpose of this section is to show the mutual references of the old and present names of administrative divisions of Japan (see Figs. 1 and 2).

An Old Administrative Divisions of Japan
(Fig. 1)

I. HOKKAIDŌ (北海道)
1) Nemuro (根室); 2, Kitami (北見); 3, Kushiro (釧路); 4, Teshio (天塩); 5, Ishikari (石狩); 6, Tōkachi (十勝); 7, Hidaka (日高); 8, Iburi (蘭越); 9, Shiribeshi (後志); 10, Oshima (渡島); 11, Chishima (千島).

II. TŌSANDŌ (東山道)
12, Mutsu (陸奥); 13, Ugo (羽後); 14, Rikuchū (陸中); 15, Uzen (羽前); 16, Rikuzen (陸前); 17, Iwashiro (岩代); 18, Iwaki (磐城); 19, Shimotsuke (下野); 20, Kōzuke (上野); 21, Shinano (信濃); 22, Hida (飛騨); 23, Mino (美濃); 24, Ōmi (近江).

III. HOKURIKUDŌ (北陸道)
25, Sado (佐渡); 26, Echigo (越後); 27, Echigo (越中); 28, Noto (能登); 29, Kaga (加賀); 30, Echizen (越前); 31, Wakasa (若狭).

IV. TŌKAIDŌ (東海道)
32, Hitachi (常陸); 33, Shimofusa (下総); 34, Kamifusa (上総); 35, Awa (安房); 36, Musashi (武蔵); 37, Sagami (相模); 38, Izu (伊豆); 39, Kai (甲斐); 40, Suruga (駿河); 41, Tōtōmi (遠江); 42, Mikawa (三河); 43, Owari (尾張); 44, Ise (伊勢); 45, Iga (伊賀); 46, Shima (志賀).

V. KINAI (畿内)
47, Yamashiro (山城); 48, Yamato (大和); 49, Settsu (摂津); 50, Kawachi (河内); 51, Izumi (和泉).

VI. SAN'INDŌ (山陰道)
52, Tango (丹後); 53, Tanba (丹波); 54, Tajima (但馬); 55, Inaba (因幡); 56, Hōki (伯耆); 57, Izu-

Note. This Kawakatsu's paper was published in 1985. 'The abolition of clans and establishment of prefecture' were started in the year 1871.

1) The old name of Hokkaidō is "Ezo" (蝦夷). There was only one possession in the Edo Era: Matsumae (松前). It was located in the southwestern area of the Oshima Peninsula.
Fig. 1. Map showing the old administrative divisions of Japan. Two capital cities of Japan, Kyōtō (794-1868) and Edo (= Tōkyō, 1612-1868), are shown on the map by a solid square. Several open ports for foreign countries at the last years of the Edo Era are also shown by an open circle: Hakodate in Oshima in Hokkaidō; Yokohama in Musashi; Shimoda in Izu; Sakai and Kōbe in Settsu; Nagasaki in Hizen; Shuri in Ryūkyū. A heavy solid line indicates the boundary of the regions. For the names of each region and possession, see in the text.
Fig. 2. Map showing the present administrative divisions of Japan. The capital city of Japan, Tōkyō (after 1868), is shown on the map by a solid square. The prefectural seats are shown by a solid circle. A heavy solid line indicates the boundary of the regions. For the names of each region, prefecture and its seat, see in the text.

The Satsunan Islands consist of the Ōsumi Islands, the Tokara Island and the Amami Islands; the Ryūkyū Islands consist of the Okinawa Islands and the Sakishima Islands. Several islands located in the southern area of the Sakishima Islands are also called the Yaeyama Islands. The general name of these many islands is the Southwestern Islands of Japan.
mo (出雲); 58. Iwami (石見); 59. Oki (隠岐).

VII. SANYODŌ (山陽道)
60. Harima (播磨); 61. Minasaka (美作); 62. Bizen (備前); 63. Bicchu (備中); 64. Bingo (備後); 65. Aki (安藝); 66. Suwa (周防); 67. Nagato (長門).

VIII. NANKAIĐŌ (南海道)
68. Ki (紀伊); 69. Awaji (淡路); 70. Awa (阿波); 71. Sanuki (讃岐); 72. Tosa (土佐); 73. Iyo (伊予).

IX. SAIKAIĐŌ (西海道)
74. Bizen (備前); 75. Chikuzen (筑前); 76. Hizen (肥前); 77. Chikugo (筑後); 78. Bungo (豊後); 79. Higo (肥後); 80. Hyōga (日向); 81. Satsuma (薩摩); 82. Ōsumi (大隅); 83. Iki (伊岐); 84. Tushima (対馬); 85. Ryūkyū (琉球).

The Present Administrative Divisions of Japan

(Fig. 2)

I. HOKKAIDŌ (北海道), Sapporo (札幌). Hokkaidō is subdivided into 14 areas: Sōya (宗谷), Abashiri (網走), Nemuro (根室), Kushiro (釧路), Rumoi (留萌), Kamikawa (上川), Tokachi (十勝), Hidaka (日高), Sorachi (知床), Ishikari (石狩), Iburi (膽振), Shiribeshi (後志), Hiyama (桧山), and Oshima (渡島).

II. TŌHOKU REGION (東北地方)
1. Aomori Pref. (青森県), Aomori (青森市); 2. Iwate Pref. (岩手県), Morioka (盛岡市); 3. Miyagi Pref. (宮城県), Sendai (仙台市); 4. Fukushima Pref. (福島県), Fukushima (福島市); 5. Akita Pref. (秋田県), Akita (秋田市); 6. Yamagata Pref. (山形県), Yamagata (山形市).

III. KANTŌ REGION (関東地方)
7. Ibaraki Pref. (茨城県), Mito (水戸市); 8. Chiba Pref. (千葉県), Chiba (千葉市); 9. Tochigi Pref. (栃木県), Utsunomiya (宇都宮市); 10. Gunma Pref. (群馬県), Maebashi (前橋市); 11. Saitama Pref. (埼玉県), Urawa (浦和市); 12. Tōkyō To (東京都), Tōkyō (東京都); 13. Kanagawa Pref. (神奈川県), Yokohama (横浜市).

IV. CHŪBU REGION (中部地方)
14. Nigata Pref. (新潟県), Nigata (新潟市); 15. Nagano Pref. (長野県), Nagano (長野市); 16. Yamashita Pref. (山梨県), Kōfu (甲府市); 17. Shizuoka Pref. (静岡県), Shizuoka (静岡市); 18. Toyama Pref. (富山県), Toyama (富山市); 19. Gifu Pref. (岐阜県), Gifu (岐阜市); 20. Aichi Pref. (愛知県), Nagoya (名古屋市); 21. Ishikawa Pref. (石川県), Kanazawa (金沢市); 22. Fukui Pref. (福井県), Fukui (福井市).

V. Kinki REGION (近畿地方)
23. Shiga Pref. (滋賀県), Ōtsu (大津市); 24. Mie Pref. (三重県), Tsu (津市); 25. Kyōto Pref. (京都府), Kyōto (京都府); 26. Nara Pref. (奈良県), Nara (奈良市); 27. Ōsaka Pref. (大阪府), Ōsaka (大阪市); 28. Wakayama Pref. (和歌山県), Wakayama (和歌山市); 29. Hyōgo Pref. (兵庫県), Kōbe (神戸市).

VI. CHUGOKU REGION (中国地方)
30. Tottori Pref. (鳥取県), Tottori (鳥取市); 31. Okayama Pref. (岡山県), Okayama (岡山市); 32. Shimane Pref. (島根県), Matsue (松江市); 33. Hiroshima Pref. (広島県), Hiroshima (広島市); 34. Yamaguchi Pref. (山口県), Yamaguchi (山口市).

VII. SHIKOKU REGION (四国地方)
35. Kagawa Pref. (香川県), Takamatsu (高松市); 36. Tokushima Pref. (德島県), Tokushima (德島市); 37. Ehime Pref. (愛媛県), Matsuyama (松山市); 38. Kōchi Pref. (高知県), Kōchi (高知市).

- 8 -
At the Bonin Islands. After Perry's 1856 Book, 'Expedition to Japan'.

Matthew Calbrith Perry (1749-1858)

Commodore Perry of the United States of America made visits to Japan, which was under a policy of seclusionism, in 1853 and again in 1854. His Official Reports are 'Narrative of the Expedition of American Squadron to the China and Japan, etc.' (1856). This Report has two different versions: The Senate Version and the House of Representative Version.

The cut figures used in the present web article were taken from Vol. I, Chapt. 10, of the Report.

William Heine was one of Navy painters of Perry's Expedition. Stimpson's collecting doings of animals (including planarians) are found in Heine's Diary published in German: Die Expedition in die Seen von China, Japan und Ochotsk, etc. (1856-58).
Fig. 3. A blank topographical sketch map of Japan and its neighbor area.
Fig. 4. The Izu Islands and the Ogasawara Islands. Explanation in the text.
Fig. 5. The Southwest Islands of Japan. Explanation in the text.

At the Bonin Islands. After Perry's 1856 Book, 'Expedition to Japan'.
Acknowledgements

The authors are indebted to Dr. Mark J. Grygier (Lake Biwa Museum, Kusatsu, Japan) for his careful reading of a draft of this web article as well as for the discussion of the contents. They are also indebted to Dr. Eudóxia M. Froehlich (São Paulo), Dr. Hugh D. Jones (Manchester) and Dr. Anno Faubel (Hamburg) for their stimulating interest which greatly aided the work.

APPENDIX I

The Hepburn System Romanization of the Japanese syllabary.

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(  ): Instructive System of spellings;  [  ]: duplication.
Nippon System of spellings also use the followings: di, du, dya, dyu, dyo, kwa, gwa, wo.

APPENDIX II

A Blank Topographical Maps of the World (for the use of basic research work) (on page 14).
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