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3. Code Table

<u>Shoreline classification codes for the 5th</u> <u>Coastline Alteration Survey</u>

Shoreline classification codes for the 4th Coastline Alteration Survey

1 Overview of display items on Google Earth

Survey item	Survey No.	Initial display
V	2nd ~ 3rd	0
	4th	0
Vegetation survey	5th	0
	2nd ~ 5th	٠
	2nd	•
Specific Plant Community Survey*	3rd	•
	5th	•
Big Trees Survey	4th	•
	2nd	0
River survey	3rd	•
Kivel survey	4th	•
	4 th (Catchment basin of the native watershed)	•
	4th (Coastline Survey)	0
Coastline alteration survey	5th (Seashore survey, coastline alteration status)	•
	5th (Seashore survey, coastline alteration status)	•
Lake and marsh survey	4th	•
Wetland survey	5th	•
Survey of seaweed beds	4th (Survey of marine organisms environment)	0
Survey of seaweed beds	5th (Seashore survey)	•
Survey of tidal flats	4th (Survey of marine organisms environment)	0
Survey of tidal flats	5th (Seashore survey)	•
Survey of coral reefs	4th (Survey of marine organisms environment)	0
Survey of colar feets	5th (Seashore survey)	٠
Mangrove survey	5th (Seashore survey)	•

Initial display : Display : Displayed at start up ONon-display : Not displayed at start up Ministry of the Environmer User manual Description of viewable data Legends for the Vegetation Map_513775 Vegetation Map_513775 Top 2nd-5th Description of viewable Ath Description of viewable data Legends for the Description Map_513775 Top 2nd-5th Description Map_513775 Description Map_513775

Survey	Survey year
1st National Survey on the Natural Environment	1973
2st National Survey on the Natural Environment	1978-1979
3st National Survey on the Natural Environment	1983-1987
4st National Survey on the Natural Environment	1988-1992
5st National Survey on the Natural Environment	1993-1998
6st National Survey on the Natural Environment	1999-2004

* Plant communities that require careful handling in terms of conservation are not included.

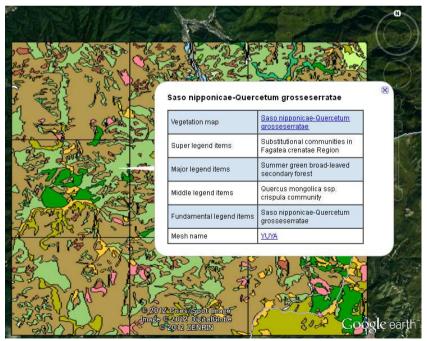
What is the National Survey on the Natural Environment?

- In order to gather basic materials on Japan's natural environment, the Ministry of the Environment has been conducting the National Survey on the Natural Environment approximately every five years since 1973 in accordance with the Nature Conservation Law.
- This survey is generally called 'Green Census', a basic survey for understanding the current status and changes in animals, plants, rivers, lakes/marshes, and tidal flats/seaweed beds/coral reefs at the national level.
- The survey is conducted with cooperation from municipalities, researchers, experts and citizens. Since the start of the survey, valuable and extensive data has been gathered.
- The outcome of each survey is published in the form of reports and maps. The reports have been used as basic materials on natural environments for use by the natural protection administration including designating and planning a natural park, conducting environmental assessments, etc.
- For details please refer to <u>http://www.biodic.go.jp/kiso/fnd_f.html</u>.

2 Description for each survey

2–1 A vegetation survey

- Results of a vegetation survey are compiled as a vegetation map, which describes each plant community classified in phytosociology in a geographical map.
 - The scale of the original drawing is 1/50,000 (2nd ~ 5th). The scale has been 1/25,000 since the 6th survey.
 - The hard-copy version of vegetation maps of the entirety of Japan was completed in the 2nd and the 3rd surveys, followed by the 4th and the 5th alteration surveys.
 - The 2nd ~ 5th vegetation maps, which appear in the initial display of the System, show the integrated information of the actual vegetation maps and the alteration information.



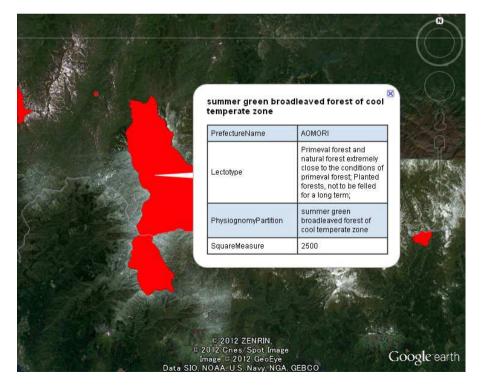
Vegetation Naturalness	Overview of Vegetation Naturalness	
10	Natural vegetation of grassland and moorland	
9	Natural vegetation of forest	
8	Substitutional vegetation close to natural vegetation of forest	
7	Substitutional vegetation of secondary forest	
6	Planted forest	
5	Substitutional vegetation of high profile grassland	
4	Substitutional vegetation of low profile grassland	
3	Fruit orchards, mulberry plantations, tea gardens and other horticultural areas	
2	Paddies, fields and other arable land, residential area with abundant trees	
1	Urban land, developed tracts and other zones where plant life is virtually non-existent	
98	Natural bare land	
99	Open water	
00	Unknown	

Super lege nd ite ms	Super legend items_Name
1	Natural vegatation in Alpine zone
2	Natural vegaetation in Vaccinio- Piceetea region
3	Substitutional communities in Vaccinio-Piceetea region
4	Natural vegetation in Fagaetea crenatae region
5	Substitutional communities in Fagaetea crenatae region
6	Natural vegetation in Camellietea japonica region
7	Substitutional communities in Camellietea japonica region
8	Riverside, moor, salt marsh and dune vegetation
9	Plantation and cultural land
10	Others

2–2 A specific plan community survey

Survey Contents

- A specific plan community survey assesses the growth status of plant communities that are academically important and/or require protection.
 - \clubsuit The scale of the original drawing is 1/50,000.
 - The plant community survey for the entirety of Japan was conducted in the 2nd National Survey on the Natural Environment. The 3rd and the 5th surveys are additional surveys to the 3rd and the 5th.
 - The survey sites are represented by polygons or points.
 - Any plant communities that require careful handling in terms of conservation are not included in the published data.
 - The initial display of the System show all the 2nd, 3rd and 5th surveys.



specific plan community(point)specific plan community(polygon)

•Reference Code

•A reference code is a serial number given to each selected specific plan community (serial number by municipality).

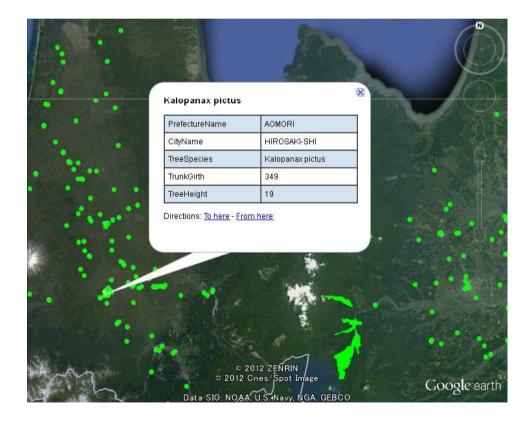
•Area

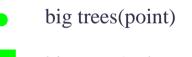
- *Ha* is used as the unit for an area; rounded to the first decimal place.
- When the first decimal place is 0, a natural number is used.

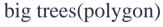
Code	Criteria of Selecting the Specific Plant Communities
А	Primeval forest and natural forest extremely close to the conditions of primeval forest
В	Extremely rare plant community and population
C	Plant communities or populations, located in northern-most or southern-most border of distribution and isolated distribution
D	Typical plant communities or populations, located in specific environment such as sand dune, precipice, salt lake, lake and marsh, river, moorland, high mountain, limestone hill, etc
Е	Typical plant communities representing local landscape
F	Planted forests, not to be felled for a long term
G	Locally endangered plant communities or populations of extinction in each prefecture area, caused by human activities such as indiscriminate collecting
Н	Plant communities or populations with scientific values 7

2–3 A big trees survey

- A big trees survey is conducted to understand the current status of big trees or big tree forests in Japan.
 - \clubsuit The scale of the original drawing is 1/50,000.
 - The information published in the System is the outcome of the 4th survey.
 - The survey results are represented by polygons, lines or points. Most parts of the information are described by points.







Reference Code

A reference code is a serial number given to each selected big tree or big tree forest (serial number by municipality).

When multiple individuals (big trees) are measured in one forest or

row of trees, these trees are given the same reference code.

Area

Ha is used as the unit for an area; rounded to the first decimal place. When the first decimal place is 0, a natural number is used.

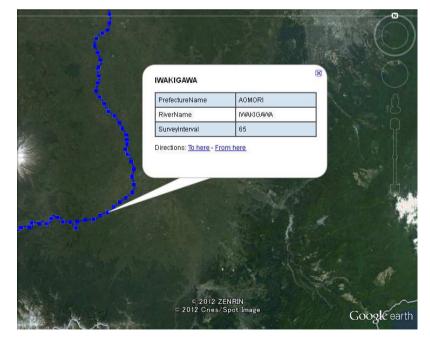
Subject Cla ssifi cati on	Subject Classification Overview
1	Individual tree
2	Forest
3	Row of trees

Preservation System	Preservation System Overview	
1	None	
2	Natural monument, etc. (A: National, B: Prefectural, C: Municipal)	
3	Natural park (A: National, B: Quasi-national, C: Prefectural)	
4	Nature conservation area (A: National, B: Prefectural)	
5	Protection forest, academic reference forest reserve, etc.	
6	Urban park (A: National, B: Prefectural, C: Municipal)	
7	Scenic zone, green conservation area, preserved trees for conservation of scenic beauty of cities, etc.	
8	Other system [maximum 2 cases] [designator (A: National, B: Prefectural, C: Municipal), Content (A: Designation only, B: Purchase only, C: Grant/subsidy, D: Other, E: Unknown)]	
9	Unknown	

2–4 A river survey

Survey Contents (A river survey)

- A river survey evaluates the current status of naturalness of rivers, status of use, alteration of rivers, and fish inhabitation.
 - The scale of the original drawings is 1/50,000.
 - River centerlines are described by lines and fish survey sites are represented by points.
 - Major Class-A rivers in Japan were assessed in the 2nd National Survey on the Natural Environment. The 3rd survey is the additional survey for the 2nd. Major Class-B rivers were evaluated in the 4th survey.
 - Items shown in the initial display of a river survey
 - The initial display of the System shows the river survey results of the 3rd and the 4th surveys as well as the native watersheds of the 4th survey; the 2nd river survey is not displayed.

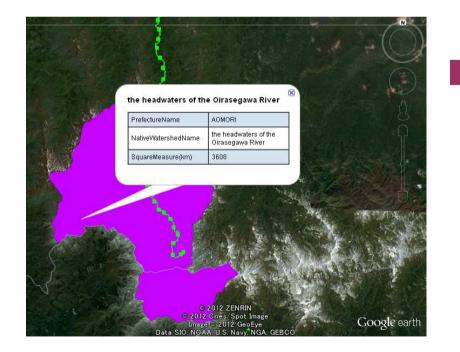


- ▲ 2nd River Survey Fish survey sites
- 2nd River Survey End of a survey section (node)
 2nd River Survey River
- 3rd River Survey Fish survey sites
- 3rd River Survey End of a survey section (node)
- 3rd River Survey River
- ▲ 4th River Survey Fish survey site
- 4th River Survey End of a survey section (node)
- 4th River Survey River
 - * Please refer to the code table in the Appendix for fish species codes.

2-4 A river survey (a survey of a native watershed)

Survey Contents (a survey of a native watershed)

- A river survey assesses the status of a native watershed, which is an area equal to or more than 1,000ha without human impact such as an artificial structure or tree-clearing.
 - \clubsuit The scale of the original maps is 1/50,000.
 - Data shown by the System is the outcome of the 4th native watershed survey.
 - Items shown in the initial display of the river survey
 - The initial display of the System shows the river survey results of the 3rd and the 4th surveys as well as the native watersheds of the 4th survey; the 2nd river survey is not displayed.



4th Native Watershed Survey

2–5 Coastline Alteration Survey

Survey Contents

- This survey evaluates the status of nature conservation and the alteration of shorelines along the coast.
 - Coastlines of Japan were surveyed in the 2nd National Survey on the Natural Environment at a 1/25,000 scale. In the 3rd and the 4th surveys, the alteration status was surveyed based on the 2nd survey map.
 - In the 5th survey, coastlines were measured along with a newly-added seashore and shallow-sea area survey (depth contour lines: 0m, 10m) as part of the Seashore Survey.
 - The System has published the 4th Coastline Alteration Survey data, the 5th Coastline and Shallow-sea Area (depth contour line) data, and the 5th Coastline Survey data.
 - The initial display of the System shows the 5th survey data (depth contour lines and coastlines).



Coastline Alteration Survey

Natural coast
Semi-natural coast
Artificial coastline
Estuary
Unknown

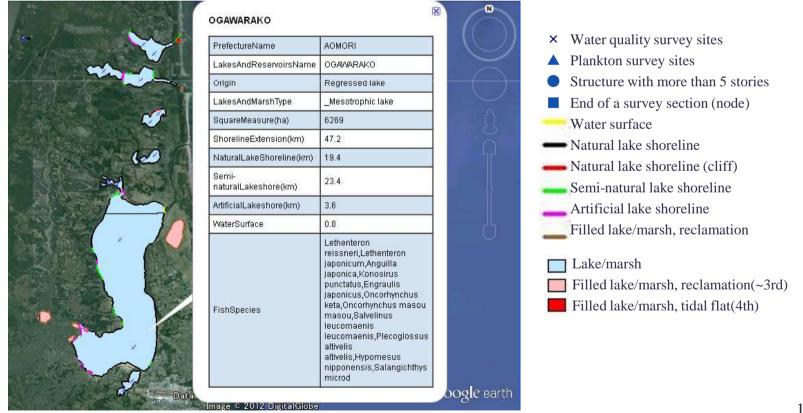
Seashore and shallow-sea area (depth contour lines)

depth contour lines(0m)
depth contour lines(-10m)

* Please refer to the code list in the Appendix for details regarding the shoreline code of the Coastline Alteration Survey.

2–6 A lake and marsh survey

- A lake and marsh survey assesses the transparency of natural lakes and marshes as well as the status of lake shoreline alteration in Japan.
 - \clubsuit The scale of the original drawings is 1/25,000.
 - The data published in the System includes the information obtained in the 4th survey.
 - Lake and marsh area, filled lake/marsh and reclamation: polygons
 - Status of lake shoreline naturalness: lines
 - Water quality survey sites: points



Code	Code for origin of lakes and marshes
1	Fault lake
2	Caldera lake
3	Volcanic lake
4	Dammed lake
5	Inland sea-lake
6	Other
0	Unknown

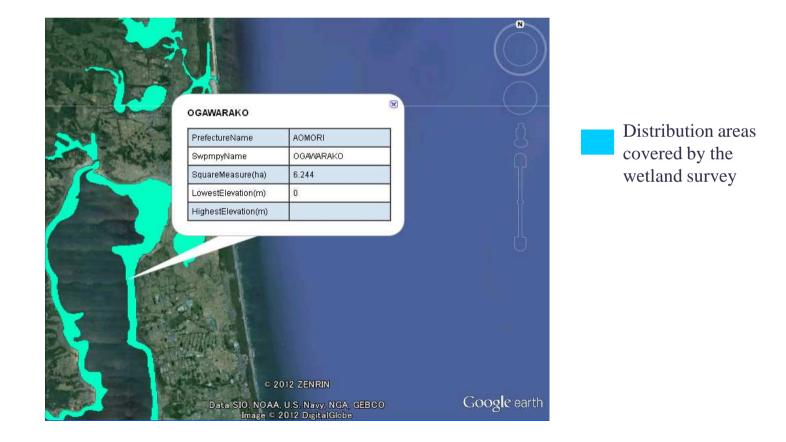
Code	Lake/marsh type (fresh water/brackish water classification) codes for the lake and marsh survey (Note: The first digit of the two-digit lake/marsh type code)
1	Fresh water type
2	Brackish water type
3	Unknown

Code	Lake/marsh type (water quality classification) codes for the Lake and Marsh Surveys (Note: The second digit of the two- digit lake/marsh type code)
1	Eutrophic lake
2	Mesotrophic lake
3	Oligotrophic lake
4	Acidotrophic lake
5	Siderotrophic lake
6	Dystrophic lake
0	Unknown

* For the fish species codes, please refer to the code table in the Appendix.

2–7 A wetland survey

- A wetland survey assesses the distribution of wetlands, which are the contact points of water and land providing habitats for diverse flora and fauna, and the information of biota, etc.
 - \clubsuit The scale of the original drawings is 1/50,000.
 - \diamond The wetland survey was conducted in the 5th survey.
 - The distribution areas are represented by polygons or points.



2–8 A sea-bed survey

Survey Contents

- A sea-bed survey covers the status of distribution and disappearance of sea beds, which provides an important habitat environment for organisms in coastal shallow sea areas.
 - \bullet The scale of original drawings is 1/50,000 in the 2nd and the 4th surveys.
 - The scale of original drawings is 1/25,000 in the 5th survey as it was newly conducted as part of the seashore survey.
 - The distribution areas are described as polygons or points.
 - For the sea-bed distribution areas in the 2nd survey which had disappeared by the time the 4th survey was conducted, the disappearance attributes are provided. The 5th survey does not provide the disappearance attributes as it was conducted as a new survey.
 - \diamond The initial display of the System shows the results of the 5th survey.

	103		Ň
	Zostera marina bed	1	
	PrefectureName	AOMORI	\bigcirc
	SurveyIntervalNumber	75	- A
	SquareMeasure(shallow/Vater •ha)	146.5	L L
A PARTICIPAL OF	OceanName	TAIHEIYOKITA	٦٢ - T
	OceanAreaName	MUTSUWAN	
D ALL	Туре	Zostera marina bed	
	□ 2012 Cnes/Spo Data SIO, NOAA, U.S. Nav	t Image y, NGA, GEBCO	Google earth



Sea-bed distribution areas

Sea-bed distribution areas (disappeared) – the 4th survey only

Code	Sea-bed classification for the sea-bed survey
1	Zostera marina bed
2	Sargassum bed
3	Fucus vesiculosus bed
4	Eisenia bicylis bed
5	Undaria pinnatifida bed
6	Gelidium amansii bed
7	Ulva and Enteromorpha bed
8	Other
0	Unknown

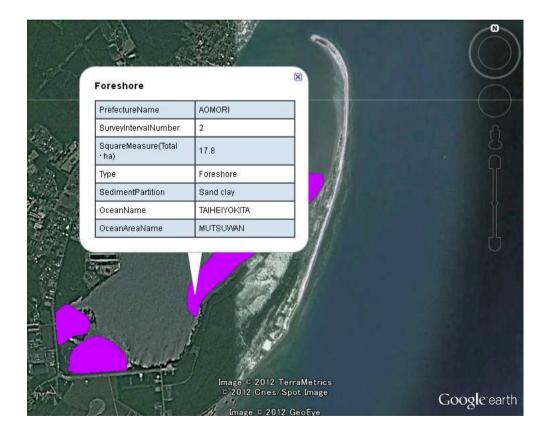
	Code	Density classification code for the sea- bed survey
	1	Dense
	2	Confluence
	3	Sparse
	0	Unknown

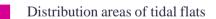
Code	Causes of sea-bed disappearance for the 4th survey
1	Direct alteration such as sea-filling
2	Barren ground
3	Overexploitation
4	Other causes such as changes in oceanographic environment
0	Unknown

* For the sea-area codes, please refer to the code table in the Appendix.

2–9 A tidal flat survey

- A tidal flat survey evaluates the status of distribution and disappearance of tidal flats, which provides important habitat environment for the coastal shallow-sea areas.
 - \bullet The scale of the original drawings is 1/50,000 in the 2nd and the 4th surveys.
 - The scale of the original drawings is 1/25,000 in the 5th survey since it was newly conducted as part of the seashore survey.
 - * The distribution areas are represented by polygons or points.
 - The initial display of the System shows the results of the 5th survey.





Code	Tidal flat classification for the 4th tidal flat survey
1	Foreshore
2	Estuarine
3	Seashore lake
4	Other

Code	Tidal flat classification for the 5th tidal flat survey
1	Foreshore
2	Estuarine
3	Seashore lake
4	Artificial tidal flat
5	Other

Code	Sediment classification for the tidal flat survey
1	Gravel
2	Sand
3	Sand clay
4	Clay

Code	Causes of tidal flat disappearance for the 4th survey
1	Sea-filling
2	Reclamation
3	Dredging
4	Other

* For the sea-area codes, please refer to the code table in the Appendix.

2–10 A coral reef survey

- A coral reef survey covers the distribution and growth types of hermatypic coral communities that grow in Japan, as well as the status of benthic organisms other than corals.
 - In the 2nd and the 4th surveys, the coral reefs in southern Kagoshima Prefecture and Okinawa Prefecture were measured at a 1/25,000 scale, and non-coral reef sea areas in the north of the coral reefs were measured at a 1/50,000 scale.
 - Survey items and attributes are different between the coral reef areas and non-coral reef areas.
 - The scale of the original drawing for the 5th survey is 1/25,000 since it was newly conducted as part of the seashore survey.
 - \diamond The distribution areas are represented by polygons or points.
 - \diamond The initial display of the System shows the results of the 5th survey.

Name of Survey		Data	Legend Field	Display	
	4th (Marine Organisms Environment Survey)	Distribution of non-coral reef areas (main land)	Growth type	Coral reef distribution area	Percent cover of hermatypic coral communities 5-50%
		Small-scale coral reef distribution areas of Ogasawara Islands	Growth type	Coral distribution area (disappeared)	PrefectureName OKNAVVA Type Percent cover of lacoma point communities 5-50
A coral reef surve y		Distribution of coral reef areas (vicinity of Okinawa Prefecture)	Туре	Less than 5% 5 - 50% 50 - 100% Bottom materials disappeared	Google earth
	5th (Seashore survey) Distribution area Growth type	Distribution areas	Preferential growt h level	Coral reef distribution area	Implementation Example of the Mark Ware from the mark with the mark withet the mark with the mark with the mark with the mark with the mar

4th survey(Distribution of non-coral reef/ areas of Ogasawara Islands)

5th survey

Code	Percent cover
1	Less than 5%
2	5-50%
3	50% or more

Code	Preferential growth level
Br	Branch
Та	Table
Ma	Mass
En	Enclosing
Fo	Forage
Ot	Other form
Mi	Mixed species

Code	Percent cover classification of non-coral reefs
1	Less than 5%
2	5-25%
3	25% - 50%
4	50% - 75%
5	75% or more

Code	Growth type classification of non-coral reefs
Br	Branch
La	Table
Ma	Mass
En	Enclosing
Fo	Forage
Ot	Other
So	Soft coral
NS	Non-hermatypic coral

4th survey(Distribution of coral reef areas)

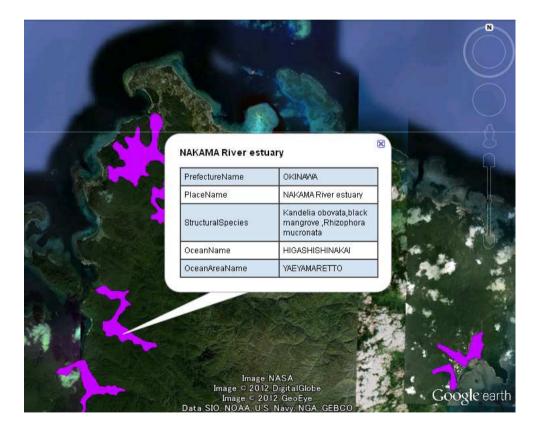
Type Code	Coral reef area types for the 4th Survey (vicinity of Okinawa)
0	Area where coral reefs have disappeared
1	Percent cover of hermatypic coral communities less than 5%
2	Percent cover of hermatypic coral communities 5-50%
3	Percent cover of hermatypic coral communities 50-100%
11	Bottom materials (drying reefs)
12	Bottom materials (submerged reefs)
13	Bottom materials (gravel)
14	Bottom materials (mud)
15	Bottom materials (sand)
16	Bottom materials (soft corals)
17	Bottom materials (marine algae)
18	Bottom materials (marine plants)

* For the sea-area codes, please refer to the code table in the Appendix.

2–11 A mangrove survey

Survey Contents

- A mangrove survey evaluates the distribution of mangrove forests.
 - The scale of the original drawing is 1/25,000. The mangrove survey was newly conducted in the 5th survey as part of the seashore survey.
 - The distribution areas are represented by polygons or points.





Mangrove distribution areas

Code	Component Species Classification
1	Kandelia obovata
2	black mangrove
3	Rhizophora mucronata
4	Lumnitzera racemosa
5	Avicennia marina
6	Sonneratia alba
7	Nypa fruticans Wurmb

* For the sea-area codes, please refer to the code table in the Appendix.

Code Table

Shoreline Classification Codes for the 5th Coastline Alteration Survey (1/2)

Shoreline classification	Shoreline classification name for the 5th survey (class)
110	Natural coast • Beach development on the seashore (Muddy seashore) • No submerged bank, etc.
111	Natural coast • Beach development on the seashore (Muddy seashore) • Submerged bank, etc.
120	Natural coast • Beach development on the seashore (Sandy seashore) • No submerged bank, etc.
121	Natural coast • Beach development on the seashore (Sandy seashore) • Submerged bank, etc.
125	Natural coast • Beach development on the seashore (Cobble beach seashore) • No submerged bank, etc.
126	Natural coast • Beach development on the seashore (Cobble beach seashore) • Submerged bank, etc.
130	Natural coast • Beach development on the seashore (Rocky seashore) • No submerged bank, etc.
131	Natural coast • Beach development on the seashore (Rocky seashore) • Submerged bank, etc.
140	Natural coast • No beach development on the seashore (Abrasion cliff) • No submerged bank, etc.
141	Natural coast • No beach development on the seashore (Abrasion cliff) • Submerged bank, etc.
210	Semi-natural coast • Beach development in front of artificial structures (Muddy seashore) • No offshore breakwater submerged bank, etc.
211	Semi-natural coast • Beach development in front of artificial structures (Muddy seashore) • Offshore breakwater submerged bank, etc.
220	Semi-natural coast • Beach development in front of artificial structures (Sandy seashore) • No offshore breakwater submerged bank, etc.
221	Semi-natural coast • Beach development in front of artificial structures (Sandy seashore) • Offshore breakwater submerged bank, etc.
225	Semi-natural coast • Beach development in front of artificial structures (Cobble beach seashore) • No offshore breakwater submerged bank, etc.
226	Semi-natural coast • Beach development in front of artificial structures (Cobble beach seashore) • Offshore breakwater submerged bank, etc.
230	Semi-natural coast • Beach development in front of artificial structures (Rocky seashore) • No offshore breakwater submerged bank, etc.
231	Semi-natural coast • Beach development in front of artificial structures (Rocky seashore) • Offshore breakwater submerged bank, etc.
240	Semi-natural coast • No beach development in front of artificial structures • No offshore breakwater submerged bank, etc.
241	Semi-natural coast • No beach development in front of artificial structures • Offshore breakwater submerged bank, etc.
250	Semi-natural coast • Artificial beach • Artificial tidal flat, etc. • No offshore breakwater submerged bank, etc.
251	Semi-natural coast • Artificial beach • Artificial tidal flat, etc. • Offshore breakwater submerged bank, etc.

Shoreline Classification Codes for the 5th Coastline Alteration Survey (2/2)

Shoreline classification	Shoreline classification name for the 5th survey (class)
310	Artificial coastline • Coastline formed by sea-filling (Upright bulkhead) • No offshore breakwater submerged bank, etc.
311	Artificial coastline • Coastline formed by sea-filling (Upright bulkhead) • Offshore breakwater submerged bank, etc.
312	Artificial coastline • Coastline formed by sea-filling (Sloping bulkhead) • No offshore breakwater submerged bank, etc.
313	Artificial coastline • Coastline formed by sea-filling (Sloping bulkhead) • Offshore breakwater submerged bank, etc.
320	Artificial coastline • Coastline formed by reclamation (Upright bulkhead) • No offshore breakwater submerged bank, etc.
321	Artificial coastline • Coastline formed by reclamation (Upright bulkhead) • Offshore breakwater submerged bank, etc.
322	Artificial coastline • Coastline formed by reclamation (Sloping bulkhead) • No offshore breakwater submerged bank, etc.
323	Artificial coastline • Coastline formed by reclamation (Sloping bulkhead) • Offshore breakwater submerged bank, etc.
330	Artificial coastline • Coastline formed by civil engineering construction other than sea-filling and reclamation (Upright bulkhead) • No offshore breakwater submerged bank, etc
331	Artificial coastline • Coastline formed by civil engineering construction other than sea-filling and reclamation (Upright bulkhead) • Offshore breakwater submerged bank, etc.
332	Artificial coastline • Coastline formed by civil engineering construction other than sea-filling and reclamation (Sloping bulkhead) • No offshore breakwater submerged bank, etc
333	Artificial coastline • Coastline formed by civil engineering construction other than sea-filling and reclamation (Sloping bulkhead) • Offshore breakwater submerged bank, etc.
410	Estuary
9998	Unknown 2 (Extension line input due to a topographic map incommensurate)
9999	Unknown 1 (The coastline is shown in the map; however, it is not selected as a survey subject.)
-1	Grid square line

Shoreline Classification Codes for the 4th Coastline Alteration Survey

Shoreline classification	Shoreline classification name for the 4th survey (class)
11	Natural coast • Muddy seashore
12	Natural coast • Sand (sandy beach) seashore
13	Natural coast • Rock (rocky beach) seashore
14	Natural coast • Abrasion cliff, etc.
21	Semi-natural coast • Muddy seashore
22	Semi-natural coast • Sand (sandy beach) seashore
23	Semi-natural coast • Rock (rocky beach) seashore
24	Semi-natural coast • Other
31	Artificial coastline · Sea-filling
32	Artificial coastline · Reclamation
33	Artificial coastline • Other
41	Estuary
9999	Unknown 1 (The coastline is shown in the map; however, it is not selected as a survey subject.)
9998	Unknown 2 (Extension line input due to a topographic map incommensurate)
-1	Grid square line