



Special Aspects of Naming for Marine Toponymy

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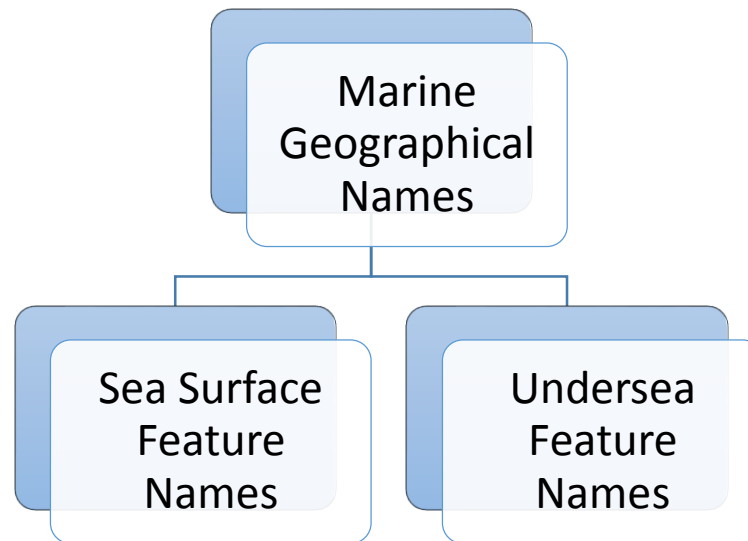
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01. Marine Geographical Names

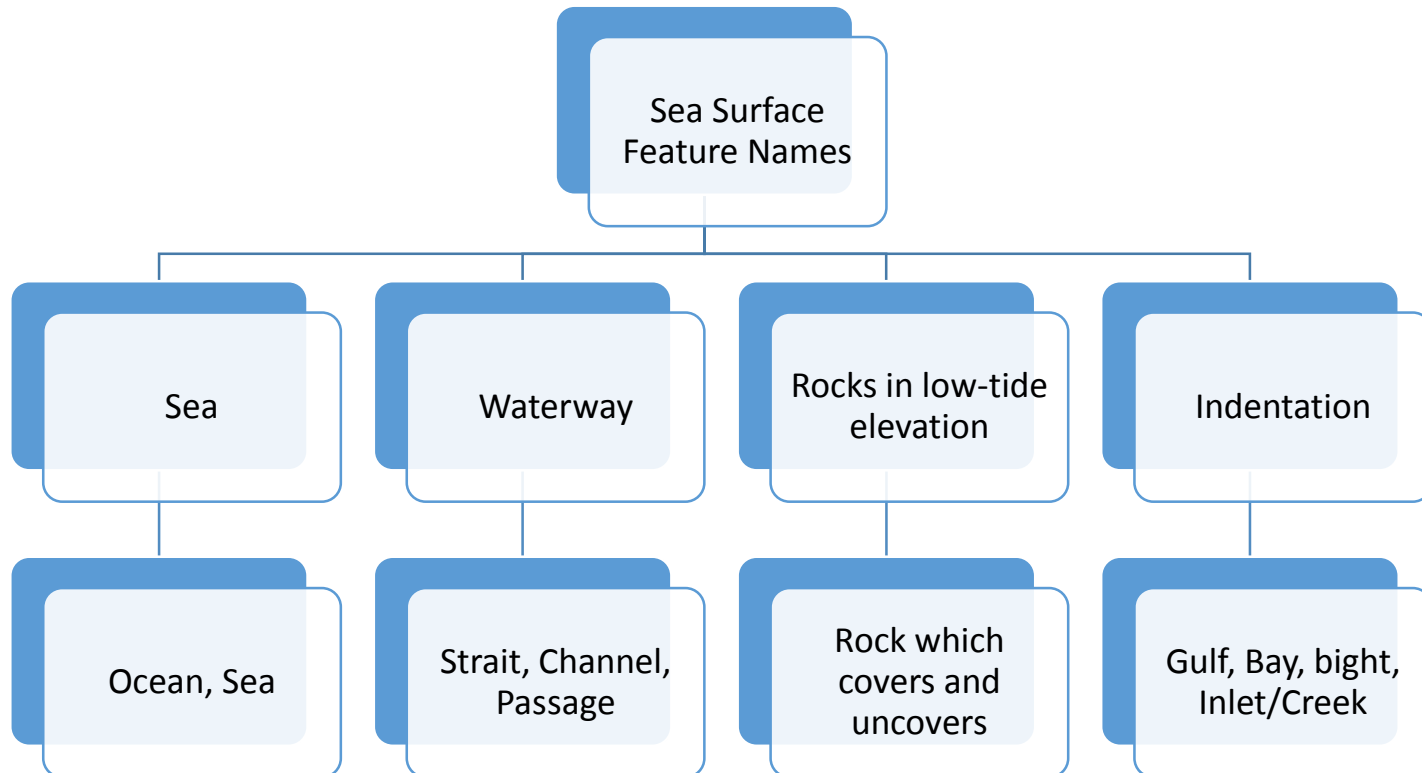
1.1 Marine Geographical Names

- Marine geographical names can be divided into **sea surface feature names** and **undersea feature names**.



1.1 Marine Geographical Names

- Sea surface feature names can be further classified into feature types in the sea, waterway, rocks in low-tide elevation, and Indentation.



1.1 Marine Geographical Names

- In the case of undersea feature names, 43 generic terms were listed in B-6 (IHO, 2013)

Archipelagic apron, Guyot(s), Fracture zone, Borderland, Continental rise, Continental shelf, Shelf-edge, Shelf Break, Shelf, Slope, Continental Margin, Mid-oceanic ridge, Shoal(s), Moat, Sill, Abyssal hill(s), Abyssal plain, Saddle, Apron, Median valley, Province, Reef(s), Bank(s), Tablemount(s), Caldera, Spur, Trough, Trench, Peak(s), Seamount(s), Seamount chain, Gap, Passage, Valley(s), Submarine valley(s), Sea valley(s), Promontory, Hill(s), Knoll(s), Terrace(s), Plateau, Basin, Cone, Fan, Seachannel(s), Ridge, Escarpment, Scarp, Levee, Hole, Canyon(s), Pinnacle(s), Rise, Deep(s)

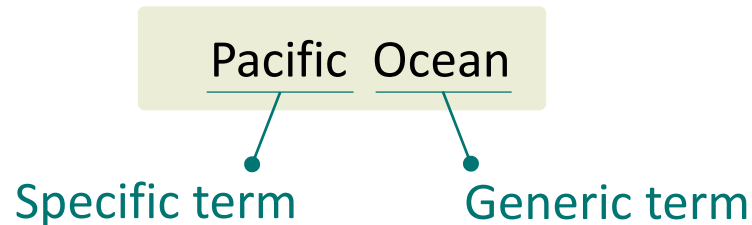
Except the GENERIC TERMS USED FOR HARMONIZATION WITH OTHER GAZETTEERS which are used for some features in the GEBCO Gazetteer and in other gazetteers. However, they are considered obsolete and their use is not recommended for new feature names. They are kept in this publication to facilitate harmonization between gazetteers.



1.2 Place Names

- A **geographic name** usually includes both a specific and a generic element.
- A **specific term** refers to a word (or words) for particular reference in each place name (UNGEEN, 2006).
- A **generic term** indicates the type of feature being identified (UNGEEN, 2006).

For example



02. Principles, Policies, and Procedures

2.1 Principles, Policies, and Procedures

- The success of a geographical names standardization program depends on its ability to meet the needs of government agencies and other organizations that rely on standard names for their operations (UNGEGN, 2006).
- Major programs with specific goals normally follow formalized courses of action. In the case of toponymic standardization, these formalized processes are sometimes divided into **principles, policies and procedures** (UNGEGN, 2006).



2.2 Principles and Policies

- The formalization processes for toponymic standardization are divided into **principles, policies and procedures**.
- **Principles** constitute the fundamental doctrines used for guiding the national standardization, encompassing general adherence to local usage, use of a particular script, and areas of responsibility (UNGEGN, 2006).
- **Policies** are rules covering specific details devised to deal with problems and the means of implementing standardization. Formalized policies may include rules covering name changes, treatment of derogatory names, names commemorating living persons, name duplication, and the use of minority-language names (UNGEGN, 2006).



2.2 Principles and Policies

For example...

- Guidelines for Standardization of Marine Geographical Names
2nd edition (KHOA, 2016)

1. The stage of naming and registering

1) The principle of naming specific terms

Principle 1. One name for one geographic entity

Principle 2. Names in local usage

Principle 3. Use of short and simple terms

Principle 4. Public participation in naming

Principle 5. Old names preferred

Principle 6. Preferred names associated with an adjacent geographical feature

Principle 7. Names in appropriate relevance (ex. Ships, Expeditions or Scientific Institutes in the Discovering)

Principle 8. Restricting person name (not considered to commemorate living persons)

Principle 9. Naming collectively for groups of like features [ex. Musicians Seamounts: Mozart Seamount, Brahms Seamount, Schubert Seamount]

Principle 10. Using descriptive name

Principle 11. Excluding temporary or compound word with unclear etymology name

Principle 12. Applying spelling rule to geographical name consistently

2) The principle of naming generic terms

Principle 13. Selecting standardized generic terms



2.2 Principles and Policies

For example...

- Guidelines for Standardization of Marine Geographical Names
2nd edition (KHOA, 2016)

2. The stage for recognition and use of names

Principle 14. Using standard dialect

Principle 15. Applying principle of general romanization

(Exceptions if translated into English and internationally accepted)

Principle 16. Restricting translation of specific term

(Exceptions if translated into English and internationally accepted)

Principle 17. Publicizing or disseminating approved marine geographical names

3. The stage for management and changes

Principle 18. Restricting place name change without special reason

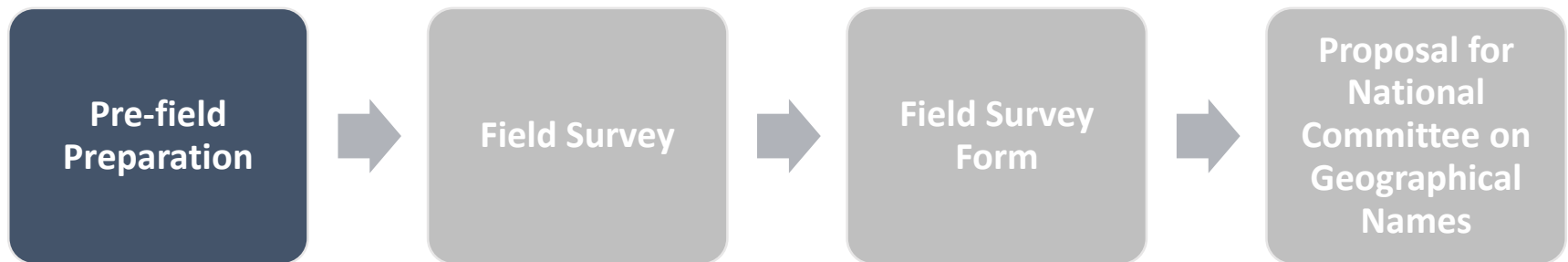
Principle 19. Changing or adding generic terms

Principle 20. Final decision-making by the national committee on geographical names

Principle 21. Appeal for dispute geographical name



2.3 Procedures



2.3 Procedures

Pre-field Preparation

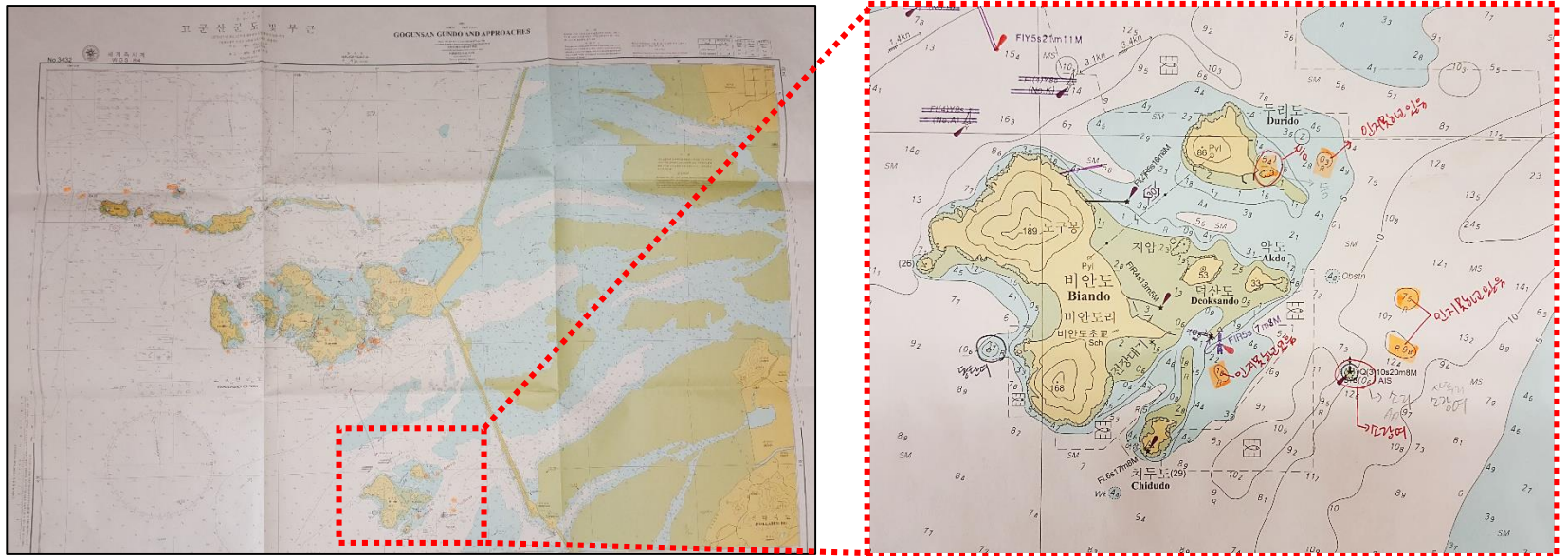
- Preparation in the office before carrying out field assignments (UNGEGN, 2006)
 - a. Assembling the appropriate maps and nautical charts that cover the field area, and other materials needed for field survey
 - b. Checking standardized geographic names in official gazetteer
 - c. Identifying written but not standardized names in maps and charts
 - d. Identifying unnamed features especially dangerous to navigate
 - e. Listing local informants (important or well-known persons in the field area)
 - f. Planning the field survey



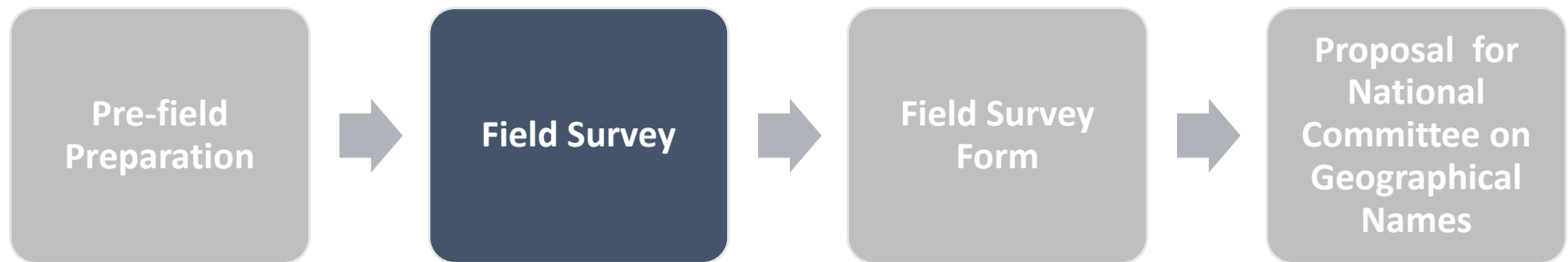
2.3 Procedures

Pre-field Preparation

- Example
 - Check features and names on charts that need to be investigated



2.3 Procedures



2.3 Procedures

Field Survey

- Investigate how local people use marine geographical names
 - Visiting town offices, coast guards etc.
 - Interviewing local residents such as fishing village chief
- **Questions to:**
 - a. Verify geographical names already found on maps or charts
 - b. Ask for geographical names not found on charts but dangerous to navigation
 - c. Investigate reason for choice of names
 - d. Indicate the spatial limits or extents of sea surface features

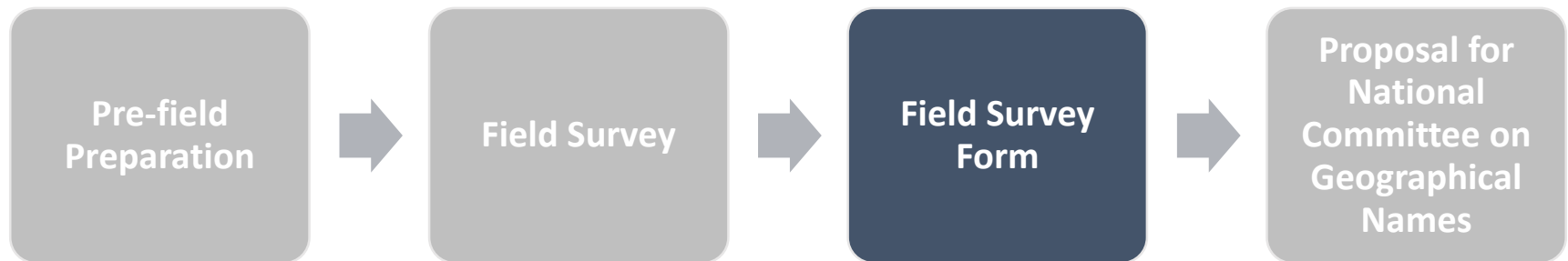


2.3 Procedures

Field Survey



2.3 Procedures



2.3 Procedures

Field Survey Form

- Designed to collect more concrete information

**Form for field survey of
marine geographical names**

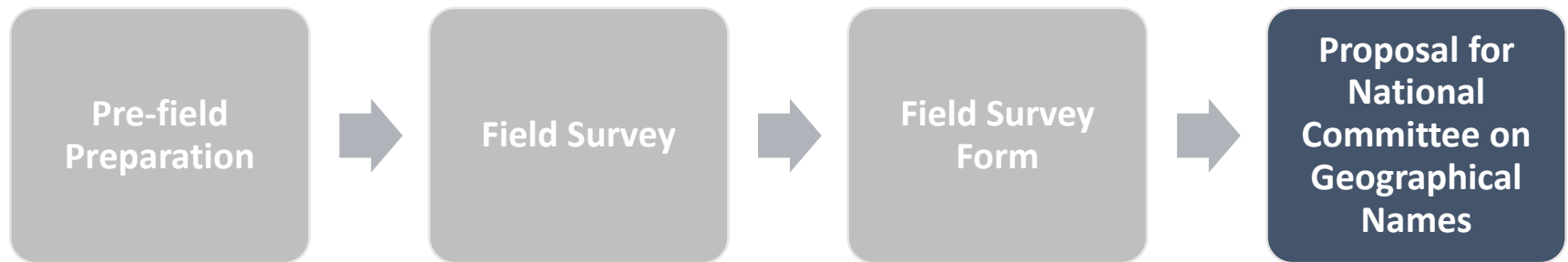
Survey no.		Date of survey		Surveyor	
Type of marine geographical name		Characteristics			
Administrative area					
Coordinates			Type of navigation		
Relevant chart			Content of depiction on chart		
Relevant map			Content of depiction on map		
Relevant material					
Origin					
(Proposed) Marine geographical name	(Local geographical name)	(Option 1)	(Option 2)	(Option 3)	
References	Name	Address	Contact	Remarks (Age/career)	
Insert charts, photos, images or tables					

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Fill up the information about

- Date of survey
- Surveyor
- Local geographical name
- Generic term
- Administrative area
- Coordinates
- Relevant chart/map/material
- Notated geographical names on chart/map
- Origin of name (reason for choice of names)
- References (name, address, contact information, remarks)
- Charts, photos, images, or tables

2.3 Procedures



2.3 Procedures

Consultation and Proposal to NCGN

- Before proposing marine geographical names to a national committee on geographical names, consultations are needed.
- **Consultation:**

	Consultant Group	Contents
a. Specific term	<ul style="list-style-type: none">• Historian, folklorist, Orthographer	<ul style="list-style-type: none">• Linguistic meaning, origin• Dialect expression
b. Generic term	<ul style="list-style-type: none">• Marine Scientist	<ul style="list-style-type: none">• Generic term
c. Boundary and extent	<ul style="list-style-type: none">• Experts in hydrography and Geography	<ul style="list-style-type: none">• Spatial Boundary and extent of features
d. Romanization	<ul style="list-style-type: none">• Experts in National Institute of Language	<ul style="list-style-type: none">• Romanizing



2.3 Procedures

Proposal Form

Form 1

- Two types of forms used for proposing marine geographical names.

Form 1

- Used when making relatively simple proposals based on field survey data
- Usually for marine geographical names recognized by local residents

2 Proposal for marine geographical names
<Form 1>
[Proposal No. 20##-##] Naming sea surface/undersea
feature name in xx Bay, xx Sea

[Proposed geographical names]

	Korean	English	Reason of proposed name
Option 1			
Option 2			
Option 3			

[Survey Information]

Type of geographical name	Characteristics
Administrative area	
Coordinates	

Insert charts, photos, images or tables

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2.3 Procedures

Proposal Form

Form 1

- Two types of forms used for proposing marine geographical names.

Form1

- **What information is needed?**
 - : Names proposed (option 1 to 3) in Korean and English / Romanization
 - : Reasons for proposed name
 - : Types of geographical name (generic term)
 - : Characteristics
 - : Administrative area
 - : Coordinates
 - : Charts, photos, images *et al.*

2 Proposal for marine geographical names
<Form 1>
[Proposal No. 20##-##] Naming sea surface/undersea
feature name in xx Bay, xx Sea

[Proposed geographical names]

	Korean	English	Reason of proposed name
Option 1			
Option 2			
Option 3			

[Survey Information]

Type of geographical name	Characteristics
Administrative area	
Coordinates	

Insert charts, photos, images or tables

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2.3 Procedures

Proposal Form

Form 2

Form 2

- For marine features beyond territorial sea.

<Form 2>

Proposal for marine geographical names

- Naming

Name proposed	
Type of marine geographical name	
Administrative or sea area	

- Geometric characteristics

Point	Line	Polymn	Mutiple points	Mutiple lines	Mutiple polyron	Combination of geometries

- Spatial information

	Longitude	Latitude
Coordinates		

- Characteristics

Maximum depth		Steepness	
Minimum depth		Shape	
Total relief		Dimension/size	

- Associated feature

- Chart references

Shown named on chart	
Shown unnamed on chart	
Within area of chart without naming	

- Reason for choice of name

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- Discovery facts

Discovery date	
Discoverer (Individual, ship)	

- Survey information

Date of survey	
Survey ship	
Sampling equipment	
Type of navigation	
Estimated Accuracy (nm)	
Survey track spacing	

• Supplemental material can be submitted as Annex in analogue or digital form.

- Proposer(s)

Name	
Date	
E-mail	
Organization	
Telephone	
Address	
Concurre (name, e-mail, organization, address)	

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2.3 Procedures

Proposal Form

Form 2

Form 2

- **What information is needed?**
 - : Names proposed
 - : Type of marine geographical name (generic term)
 - : Administrative or sea area
 - : Geometric characteristics
 - : Spatial information
 - : Characteristics
 - : Associated Feature
 - : Chart references
 - : Reason for choice of name
 - : Discovery facts
 - : Survey information
 - : Proposer(s)

<Form 2>

Proposal for marine geographical names

• Naming

Name proposed	
Type of marine geographical name	
Administrative or sea area	

• Geometric characteristics

Point	Line	Polygon	Multiple points	Multiple lines	Multiple polygons	Combination of elements

• Spatial information

Coordinates	Longitude	Latitude

• Characteristics

Maximum depth	Steepness
Minimum depth	Shape
Total relief	Dimension/size

• Associated feature

• Chart references

Shown named on chart	
Shown unnamed on chart	
Within area of chart without naming	

• Reason for choice of name

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03. Special Issues for Sea Surface Generic Terms

3.1 Standard Norm of Maritime Feature Naming

- Recently, increasing studies centered on sea areas and fishery activities raised the issue of standardization of sea surface names, since the standardized names can reduce the confusion that may occur in communication.
- Standardized and consistent usage of generic terms is preferred,
- BUT often the generic terms does not reflect the nature of the feature,
 - The definition of generic terms is ambiguous
 - The use of one generic term applied in diverse ways to different geographical features



3.2 Analysis of Existing Glossaries of Generic Terms

- When analyzing definitions of generic terms of sea surface names in references, they are roughly divided into
 - **Division of water body:** ocean, sea
 - **Indentation** of the sea or ocean: gulf, bay, bight, sound
 - **Connection** between two water bodies: channel, passage, strait, sound
- **The definitions of those generic terms** were compared and analyzed based on **the shape, inclusion relation, size, function, and other characteristics.**



3.2 Analysis of Existing Glossaries of Generic Terms

Division of Water Body : OCEAN, SEA

- **Shape**

- OCEAN: a major area of salt water which is divided geographically

- **Inclusion relation & size**

- SEA: a smaller division of the OCEAN

	Shape	Inclusion relation	Size
OCEAN	<ul style="list-style-type: none">• The major area of salt water covering the greater part of the earth ^{1, 2, 3, 5, 6}• this body of water is divided geographically ^{1, 3, 6}		
SEA	<ul style="list-style-type: none">• more or less confined by continuous land or chain of islands ^{1, 2}	<ul style="list-style-type: none">• smaller divisions of the OCEANS ^{2, 3}	<ul style="list-style-type: none">• smaller than an OCEAN ^{5, 6}

¹Bowditch(2002), ²CGNA(1996), ³IHO(1994), ⁴NZGB(2014), ⁵CPCGN(2012) , ⁶KHOA(2016)

3.2 Analysis of Existing Glossaries of Generic Terms

Indentation of the Sea or Ocean : GULF, BAY, BIGHT, COVE

- **Shape**

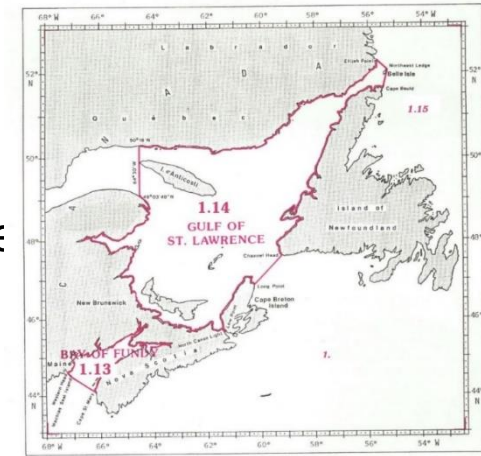
- GULF, BAY, BIGHT, COVE as indentation feature
- BIGHT is a extensive curved indentation of the coastline

- **Inclusion relation**

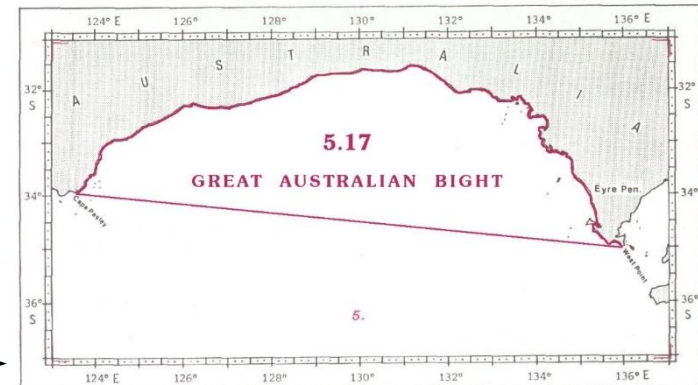
- GULF and BAY as parts of the SEA

- **Size**

- GULF is larger than a BAY
- BAY is larger than a COVE
- BIGHT is similar to or larger than a BAY



▲ GULF OF ST.LAWRENCE
AND BAY OF FUNDY (S-23)



▶ GREAT AUSTRALIAN BIGHT (S-23)



3.2 Analysis of Existing Glossaries of Generic Terms

Indentation of the Sea or Ocean

	Shape	Inclusion relation	Size	Other characteristics
GULF	<ul style="list-style-type: none"> major indentation into the land (extending into the land) ^{1, 2, 3, 4, 5, 6} 	<ul style="list-style-type: none"> A part of the SEA ^{1, 2, 3, 4, 5} 	<ul style="list-style-type: none"> smaller than a SEA ⁶ larger than a BAY ^{1, 2, 3, 4, 5, 6} 	-
BAY	<ul style="list-style-type: none"> Wide indentation in the coastline ^{1, 2, 3, 4} A well marked indentation whose penetration is in such proportion to the width of its mouth as to contain land locked waters ⁶ 	<ul style="list-style-type: none"> A part of the SEA ^{2, 4, 5} 	<ul style="list-style-type: none"> smaller than a GULF ^{1, 3, 4, 6} Larger than a COVE ^{1, 3, 4, 6} 	-
BIGHT	<ul style="list-style-type: none"> A large or extensive curved indentation of the coastline ^{1, 2, 3, 4, 5, 6} 	<ul style="list-style-type: none"> Similar to or larger than a BAY ^{2, 4} 		
Cove	<ul style="list-style-type: none"> A small indentation along a coastline or in a lake ^{2, 4} A sheltered recess in a coast ^{1, 5} Semi-enclosed bay ⁴ 	<ul style="list-style-type: none"> A part of seas, lakes, or rivers ¹ Generally inside a larger embayment ³ 	<ul style="list-style-type: none"> smaller than a BAY ^{1, 3, 4, 6} 	(a CREEK or INLET) where boats may shelter

¹Bowditch(2002), ²CGNA(1996), ³IHO(1994), ⁴NZGB(2014), ⁵CPCGN(2012), ⁶KHOA(2016)

3.2 Analysis of Existing Glossaries of Generic Terms

Connection between two water bodies : CHANNEL, PASSAGE, STRAIT

- **Shape**

- narrow water body or waterway connecting two larger bodies of water

- **Function**

- navigable waterway

- **Inclusion**

- CHANNEL is included in passage or strait according to the definition of channel (ICSM, 1996; IHO, 1994)
- However, the definition of PASSAGE can be inferred that passage is included in the channel since it is defined as a CHANNEL that can navigate in Bowditch (2002), ICSM (1996), and IHO (1994).
- The inclusion relations are contradictorily defined



3.2 Analysis of Existing Glossaries of Generic Terms

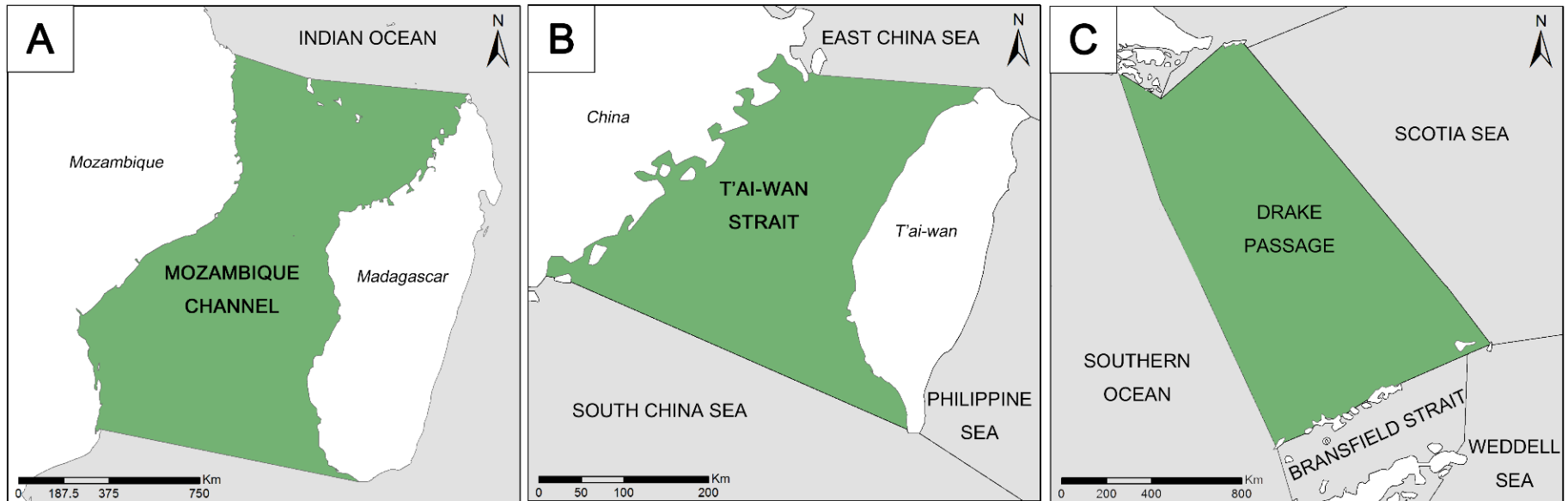
Connection between Two Water Bodies

	Shape	Inclusion relation	Size	Function	Other Characteristics
CHANNEL	<ul style="list-style-type: none"> • Deep waterway ^{1, 2, 3, 6} • Narrow water body joining larger water bodies ^{4, 5} 	<ul style="list-style-type: none"> • Deepest part of a bay, passage or strait ^{1, 2} 	<ul style="list-style-type: none"> • Smaller than a STRAIT ⁶ 	<ul style="list-style-type: none"> • Navigable Route ^{1, 2, 3, 6} 	<ul style="list-style-type: none"> • Natural or dredged ^{1, 2, 3, 6}
PASSAGE	<ul style="list-style-type: none"> • Narrow water body ^{1, 2, 4, 5, 6} • Especially one through reefs or islands ^{1, 2, 3, 6} • Connecting two larger water bodies ^{4, 5} 	<ul style="list-style-type: none"> • Part of CHANNEL ^{1, 2, 3, 6} 		<ul style="list-style-type: none"> • Navigable ^{1, 3, 4, 5, 6} 	
STRAIT	<ul style="list-style-type: none"> • Relatively narrow waterway ^{2, 3, 4, 6} • connecting two larger bodies of water ^{1, 2, 3, 4, 5, 6} 	<ul style="list-style-type: none"> • Part of PASSAGE ^{1, 2, 4} 	-	<ul style="list-style-type: none"> • Usually navigable ^{2, 4} 	

¹Bowditch(2002), ²CGNA(1996), ³IHO(1994), ⁴NZGB(2014), ⁵CPCGN(2012) , ⁶KHOA(2016)

3.2 Analysis of Existing Glossaries of Generic Terms

Connection between Two Water Bodies



Comparison between cases of the generic terms CHANNEL, PASSAGE, and STRAIT appearing in S-23

The distinction among actual cases is ambiguous, it may be difficult to establish standardized definitions related to CHANNEL, STRAIT, and PASSAGE

3.2 Analysis of Existing Glossaries of Generic Terms

Lack of Consistency in the Generic Term

- There are some generic terms which could be applied to 'indentation' or 'connection' categories.
>> SOUND, CREEK, INLET, GUT
- These generic terms can be diversely applied to many geographical features.



3.2 Analysis of Existing Glossaries of Generic Terms

Lack of Consistency in the Generic Term

- **Indentation features**
 - SOUND as a arm of a sea such as an inlet
 - CREEK, GUT, INLET as a small and narrow opening
 - > INLET as tapering feature towards its head
 - > CREEK which is tidal throughout its whole feature
- **Connection features**
 - SOUND as a long arm of a sea connecting two larger bodies of water
 - CREEK, GUT, INLET as small, narrow waterway



3.2 Analysis of Existing Glossaries of Generic Terms

Lack of Consistency in the Generic Term

	Shape	Size	Other characteristics
SOUND (1)	<ul style="list-style-type: none"> An arm of the sea; inlet⁵ 		-
SOUND (2)	<ul style="list-style-type: none"> A long arm of a sea connecting two larger bodies of water^{1, 2, 3} 	usually wider and more extensive than a strait ^{1, 2, 3}	
	<ul style="list-style-type: none"> A long arm of a sea forming a channel between an island and a mainland^{1, 2, 3, 4} 	-	-
SOUND (3)	<ul style="list-style-type: none"> A large body of water from which two or more inlets, arms, or channels branch off⁵ 	-	-
CREEK (1)	<ul style="list-style-type: none"> A wide arm¹ a small, narrow inlet or bay^{2, 3, 5, 6} extends farther inland than a cove³ 	<ul style="list-style-type: none"> Narrow inlet^{2, 3, 5} Small, narrow bay^{3, 6} 	<ul style="list-style-type: none"> tidal^{2, 3, 5, 6}
CREEK (2)	<ul style="list-style-type: none"> a small channel¹ A long narrow water body joining two larger water bodies⁵ 	-	<ul style="list-style-type: none"> Tidal^{2, 5}

¹Bowditch(2002), ²CGNA(1996), ³IHO(1994), ⁴NZGB(2014), ⁵CPCGN(2012), ⁶KHOA(2016)

3.2 Analysis of Existing Glossaries of Generic Terms

Lack of Consistency in the Generic Term

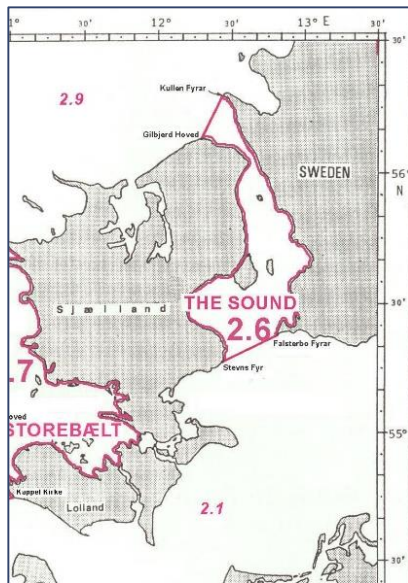
	Shape	Inclusion relation	Size	Other characteristics
INLET (1)	<ul style="list-style-type: none"> • A narrow opening ^{1, 3, 5, 6} • An elongated body of water ⁵ • a minor indentation of water ^{2, 4} • usually tapering towards its head ^{2, 3, 6} 	<ul style="list-style-type: none"> • Often a BAY within a BAY ⁴ • Connected to the SEA ^{2, 5} 		
INLET (2)	<ul style="list-style-type: none"> • A narrow stretch of water connecting two larger water bodies ⁵ 			
GUT (1)	<ul style="list-style-type: none"> • A small or narrow tidal inlet ^{2, 3, 5} 		<ul style="list-style-type: none"> • Small INLET ⁵ 	<ul style="list-style-type: none"> • Tidal ⁵ • sometimes forming a CHANNEL through it ²
GUT (2)	<ul style="list-style-type: none"> • A narrow channel between two larger bodies of water ^{2, 3, 5} 		<ul style="list-style-type: none"> • Narrow CHANNEL/ PASSAGE ^{2, 3, 5} 	

¹Bowditch(2002), ²CGNA(1996), ³IHO(1994), ⁴NZGB(2014), ⁵CPCGN(2012), ⁶KHOA(2016)

3.2 Analysis of Existing Glossaries of Generic Terms

Lack of Consistency in the Generic Term

- For example, in case of SOUND



▲ The Sound (S-23)



▲ Puget Sound
(MODIS image)

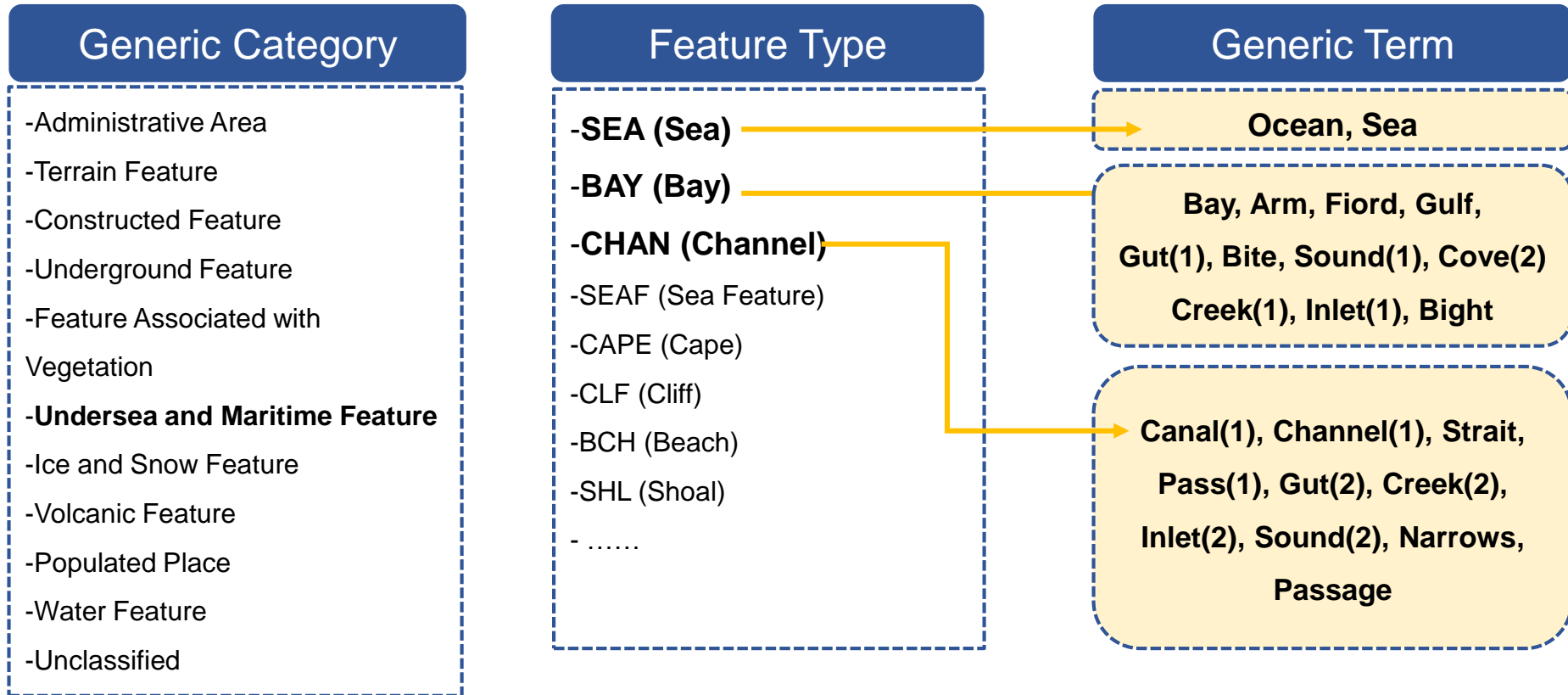


▲ Jones Sound (CPCGN)

The use of one generic term applied in diverse ways to different geographical features can be a possible source of confusion.

3.3 Analysis of Classification System of Feature Types

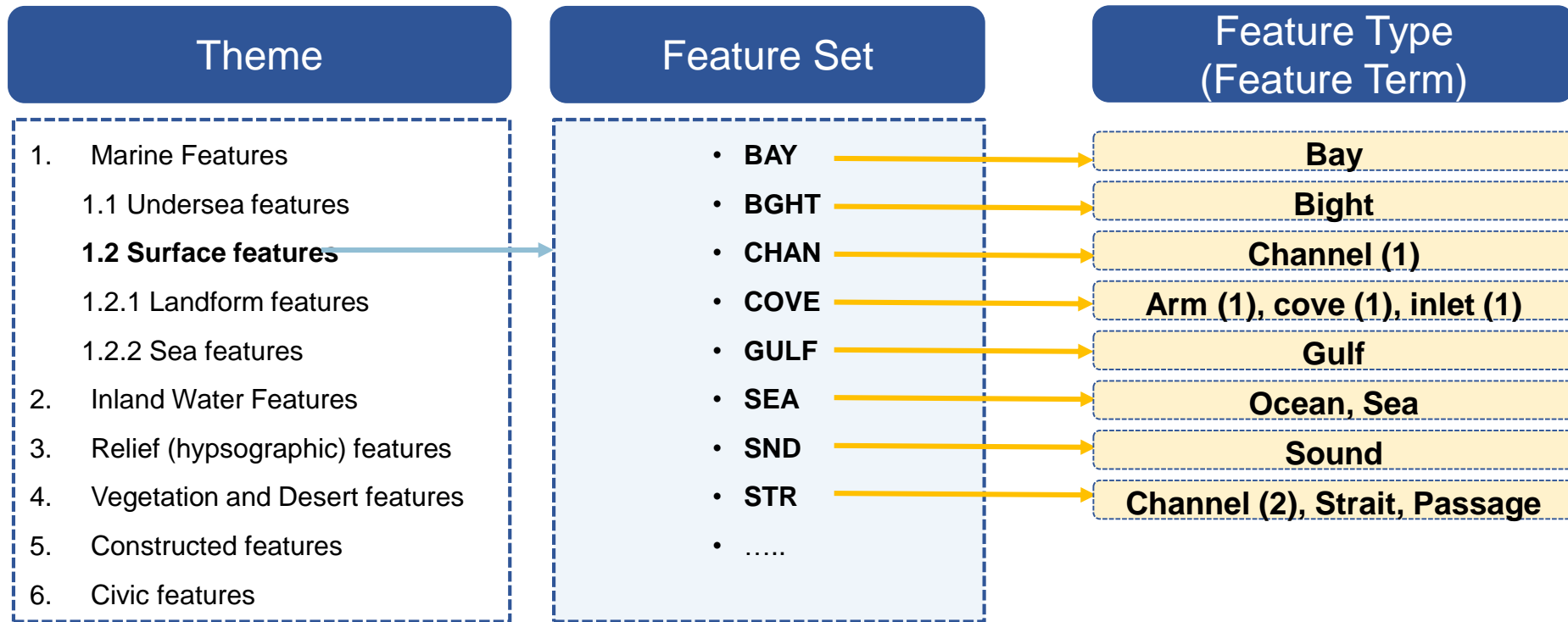
Canada (GNBC)



Generic terms which can be diversely applied to many geographical features were distinguished with numbers. e.g. SOUND(1), SOUND(2)

3.3 Analysis of Classification System of Feature Types

Australia (CGNA)



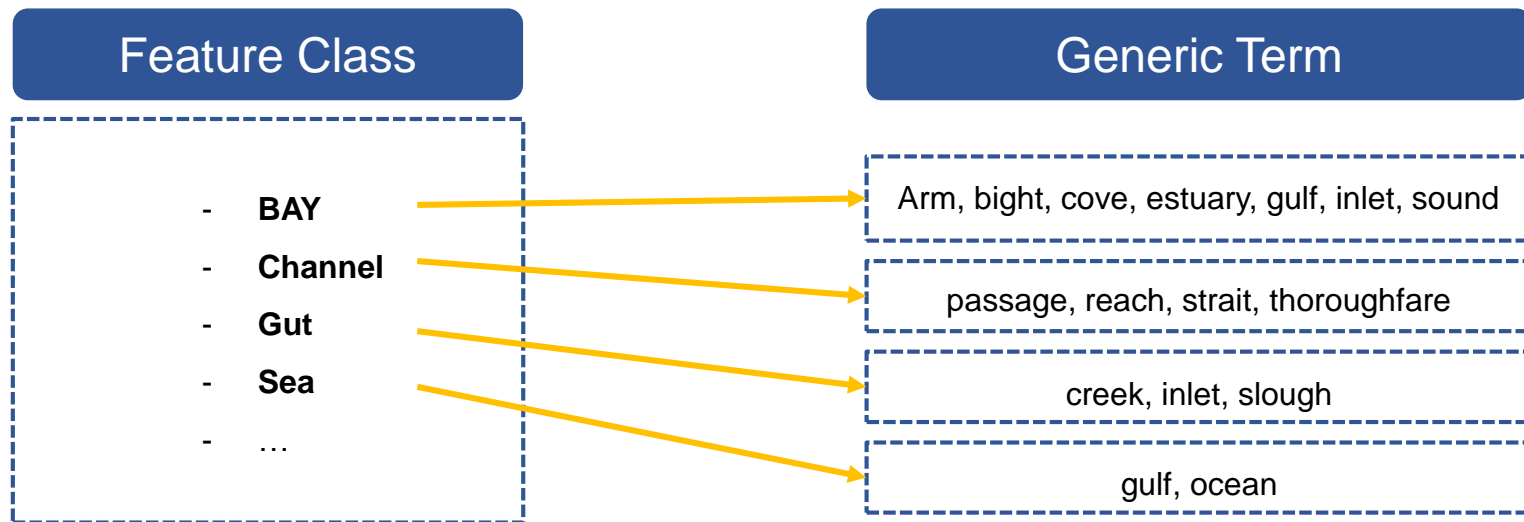
The terms are difficult to distinct from each other (such as CHANNEL, PASSAGE, STRAIT).

3.3 Analysis of Classification System of Feature Types

USA (USBGN)

Feature class: a group of features in a broadly defined descriptive category. They are defined for the purposes of this system and have no status as standards.

Generic term: commonly used generics. It assists in understanding the range of cultural and natural entities represented by the term.

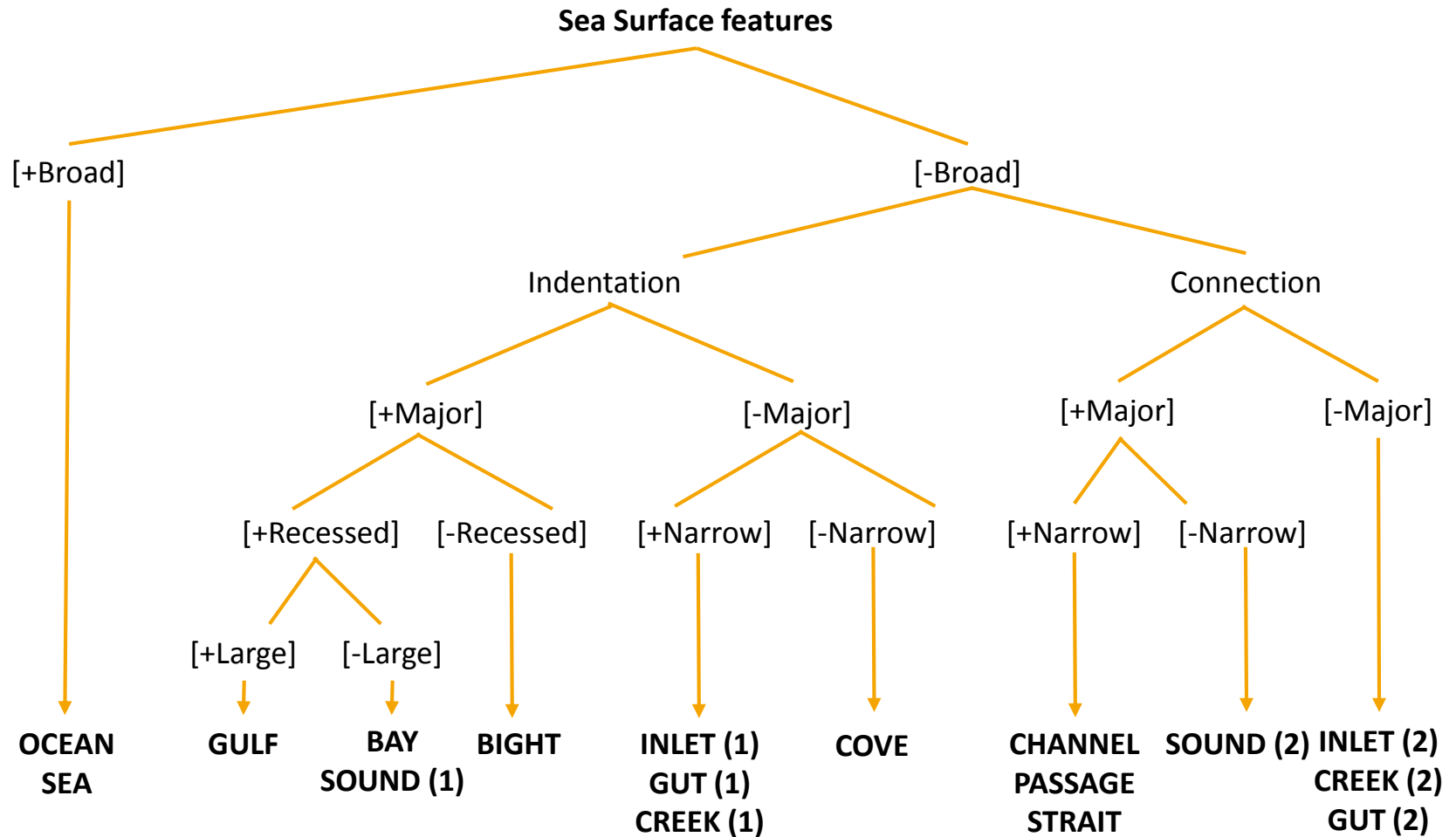


3.4 Development of Classification System

- Based on the criteria of generic terms analyzed from the glossary and classification systems, we made a frame to classify generic terms of sea surface features
- In case of similarity problem among the definition of different generic terms
 - The terms are difficult to distinct from each other (such as CHANNEL, PASSAGE, STRAIT).
- In case of lack of consistency in the generic term
 - Generic terms which can be diversely applied to many geographical features were distinguished with numbers. e.g. SOUND(1), SOUND(2)



3.4 Development of Classification System



3.5 Conclusion and Discussion

- To solve the problem of vague distinction between each generic term of sea surface features
 - Based on the criteria analyzed from glossaries and classification systems of national naming authorities
 - Compared with actual usage presented in S-23 and other gazetteers
- ▶ **made a classification frame of generic terms for sea surface features.**
- However, this classification frame doesn't consider the inclusion relations among generic terms
- It is not easy to find inclusion relationship in classification systems or in usage.
- ▶ **Further detailed research is needed to develop standard norms for generic terms.**



Thank you
for Your Attention

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