# Report by NOAA/NCEI on maintenance issues to SCUFN 35.1-07.1A

Chris Slater Lead Software Developer NOAA NCEI/CIRES chris.slater@noaa.gov Jennifer Jencks Director IHO Data Centre for Digital Bathymetry *jennifer.jencks@noaa.gov* 



## Introduction

- 1. The NCEI/DCDB software development team began addressing recent Gazetteer issues and enhancement requests in March 2021.
- 2. Updates were made to Gazetteer v4.3.0, addressing 5 enhancements
- 3. Maintenance updates were made in Gazetteer v4.3.1, v4.3.2, v4.3.3, v4.3.4, v4.3.5, v4.3.6
- 4. Began development of Gazetteer v5.0.0





International Hydrographic Organization Organisation Hydrographique International

#### ngdc.noaa.gov/gazetteer/

#### Request #1: Editor does not update when changing users

The editor now changes to the last user to make a change. Additionally, a new field, "Owner", represents the user that created the feature record and maintains the previous behavior.

		Edit	Delete
Ungin or manie			
Additional Information			
Minimum Depth (m)			
Maximum Depth (m)			
Total Relief (m)			
Dimension/Size			
Geometry (?)	Primary Geometry: POINT (0 0)		
	Secondary Geometry:		
Owner	test.editor		
Latest Editor	test.admin		
Editor's Remarks			



### Request #2: Display Gazetteer version information

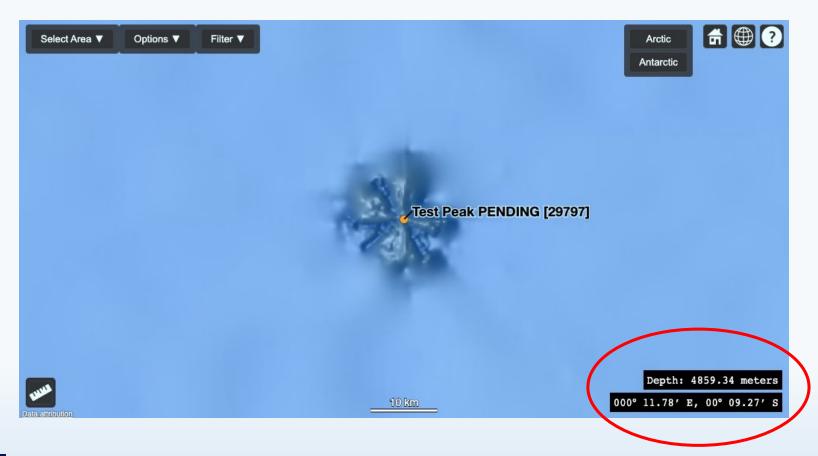
The Gazetteer version is displayed in the lower left corner of the main page.

Abro	Ihos Shelf DELETED	Additional Information	
Abut	bacer Ridge	Minimum Depth (m)	
Aby	Canyon	Maximum Depth (m)	
Acap	oulco Seamounts	Total Relief (m)	
Acap	oulco Seamounts DELETED	Dimension/Size	
Acap	oulco Seamounts DELETED	Geometry (?)	Pri
Acap	oulco Seamounts DELETED		Sec
Acap	oulco Seamounts DELETED		Sec
A	aulas Sasmaunta DELETED	Owner	tes
		Latest Editor	tes
	Add New Feature Export results as: 🔻	Editor's Remarks	



#### Request #3: Replace "Elevation" with "Depth" on chart background

Depth information from the GEBCO gridded bathymetry database is displayed as depth instead of elevation.

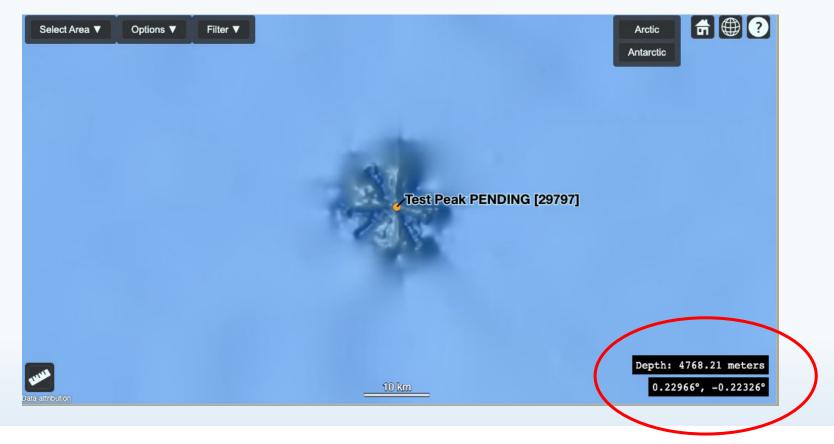




International Hydrographic Organization Organisation Hydrographique Internationale

### Request #4: Coordinate display in dec deg matches geometry

The coordinate display in decimal degrees matches the formatting of the geometry well known text. Positive and negative values are uses instead of N, S, E, W.





International Hydrographic Organization Organisation Hydrographique Internationale

#### Request #5: IOC Logo Update

Updated the IOC logo.





International Hydrographic Organization Organisation Hydrographique Internationale

#### **Third-Party Library Security Updates**

- 1. v4.3.1, v4.3.2, v4.3.3, v4.3.4, v4.3.5, v4.3.6
- 2. 60 security vulnerabilities in 18 third-party libraries
- 3. Includes Log4Shell (CVE-2021-44228)



### Gazetteer v5 API (alpha)

Gazetteer v5.0.0 will include an updated REST (Representational State Transfer) API which will allow for integration with the KHOA Beta-Gazetteer.

Most of the development time spent this year was developing an initial version of this API.

An alpha version of the API has been deployed to <u>ccog.colorado.edu/gazetteer5</u> for review and testing.

Enhancement feedback and bug reports will be addressed in the next Gazetteer development cycle, next year.



#### Gazetteer v5 API (alpha) - Authentication

The Gazetteer v5 API uses OAuth 2.0 for authentication. OpenID Connect is also enabled.

For the test environment, the token provider is located at <u>ccog.colorado.edu/cas</u> with the OpenID Connect well-known endpoint at <u>ccog.colorado.edu/cas/oidc/.well-known</u>.

Fine grained access control can be enabled for users on the API endpoints.

Test users will be added to the test system as needed.



#### Gazetteer v5 API (alpha) - Documentation

The Gazetteer v5 API uses the OpenAPI 3.0 specification for documentation. Programmatic documentation is available from <u>ccog.colorado.edu/gazetteer5/feature-service/openapi/v3/api-docs</u>. Swagger UI provides human readable documentation from the OpenAPI documentation and allows for users to try the API from the documentation page.

This documentation is located at <a href="mailto:ccog.colorado.edu/gazetteer5/view/admin/api-docs">ccog.colorado.edu/gazetteer5/view/admin/api-docs</a>

		Indxordated - Dedict the steller intestants, returning	
Contacts Operations to view and edit proposers and discoverers			
DELETE /api/v1/contact/{id} Delete a contact		Execute	
GET /api/vl/contact/{id} Describe a contact	Res	ponses	
GET /api/v1/contact Search for contacts	Cod		Links
POST /api/v1/contact Add a contact	200	OK Media type	No links
PUT /api/v1/contact/{id} Update a contact		application/json  Control Accept heads.	
Features Operations to view and edit undersea features		Example Value   Schema {     "itens": [	
DELETE /api/v1/feature/{id} Delete a feature		<pre>{     f         f             "id": "string",             "version": 0,</pre>	
GET /api/v1/feature/{id} Describe a feature		"name": "string", "comments": "string", "emill": "string",	
GET /api/v1/feature Search for features		"phone": "string", "organization": "string", "timeCreated": "2021-04-05T20:17:09.7992", "timeLastUpdated": "2021-04-05T20:17:09.7992",	
POST /api/vl/feature Add a feature		<pre>~timeLostupated : '2021-04-05/2012/:05.7992', "LostUpdatedby": "string" } ].</pre>	
PUT /api/v1/feature/{id} Update a feature		<sup>™</sup> page":0, "totalPages:0, "totalItems:0,	
Generic Terms Operations to view and edit generic terms	Зхх	"itemsPerPage": 0 } Fotbidden	No links
DELETE /api/v1/generic-term/{name} Delete a generic term		Media type	
GET /api/vl/generic-term/{name} Describe a generic term		application/json   Example Value   Schema	
GET /api/vl/generic-term Search for generic terms		{ "flashErrors": [	

#### Gazetteer V5.0 - Spring, 2022

Significant changes are needed in the current GEBCO Gazetteer in order to support the KHOA Beta-Gazetteer integration and simplify future development.

<u>Face-to-face meeting between GEBCO Gazetteer developers and KHOA Beta-Gazetteer developers at SCUFN</u> 35.1

The goals for the upcoming development cycle include:

- Supporting KHOA's developers as they develop and test the Beta-Gazetteer integration using well known authentication and integration standards (OAuth, REST APIs)
- Updating the API, fixing reported bugs and adding requested enhancements
- In-depth testing
- Updating the user interface to use a modern and more maintainable framework, Vue.js



- 1. SCUFN Members continue to test the improvements made to date and notify the IHO DCDB of any issues.
- 2. SCUFN members provide support and feedback when needed during development of the GEBCO Gazetteer and KHOA Beta-Gazetteer integration.



#### **Justification & Impacts**

- 1. It should be understood that continued improvements and enhancements of the Gazetteer will remain incremental. Annual funding of will continue to be used to:
  - a. Perform annual maintenance and upgrades (when necessary)
  - b. Implement a limited number of requested enhancements
  - c. Progress the development of the GEBCO Gazetteer and KHOA Beta-Gazetteer integration



SCUFN is invited to:

- a. note this paper;
- b. consider the Recommendations and Impacts listed.



International Hydrographic Organization Organisation Hydrographique Internationale Please contact Chris Slater with requests and feedback chris.slater@noaa.gov