

# Report by NOAA/NCEI on maintenance issues to SCUFN

35.1-07.1A

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# 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

**GEBCO**  
Undersea Feature Names Gazetteer

Undersea Feature Search

Specific Term

Generic Term (?)

Proposer

Discoverer

Assoc. Meeting

Search results: 4377 features found.

- Abbott Seamount
- Abraham Canyon
- Abrolhos Ridge
- Abrolhos Shelf
- Abubacer Ridge
- Abu Canyon
- Acapulco Seamounts
- Aceste Seamount
- Aconcagua Canyon
- Açor Bank
- Açores Este Fracture Zone
- Açu Canyon
- Adak Canyon
- Adams Seamount
- Adana Trough
- Adare Basin
- Adare Trough
- Adelaide Bank
- Adieu Canyon
- Admiralteystvo Rise
- Admiralteystvo Trough
- Admiralty Guyot

Select Area ▼ Options ▼

Arctic

Antarctic

Kane Fracture Zone

Depth: 4841.68 meters

039° 48.02' W, 20° 46.11' N

Name Kane Fracture Zone

Proposed By

Discovered By

Last Updated 2010-01-01

Associated Meeting(s)

Origin of Name



# 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.

Origin of Name

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

Edit Delete



# Request #2: Display Gazetteer version information

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

Abrolhos Shelf DELETED
Abubacer Ridge
Aby Canyon
Acapulco Seamounts
Acapulco Seamounts DELETED
Acapulco Seamounts DELETED
Acapulco Seamounts DELETED
Acapulco Seamounts DELETED
Acapulco Seamounts DELETED

Add New Feature

Export results as: ▼

Gazetteer Version: 4.4.0-SNAPSHOT

**Additional Information**  
**Minimum Depth (m)**  
**Maximum Depth (m)**  
**Total Relief (m)**  
**Dimension/Size**  
**Geometry (?)** Pri  
**Sec**  
**Owner** tes  
**Latest Editor** tes  
**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.



# 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 used instead of N, S, E, W.



# Request #5: IOC Logo Update

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Updated the IOC logo.



# Maintenance Updates

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## 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)

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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 [ccog.colorado.edu/gazetteer5](https://ccog.colorado.edu/gazetteer5) 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

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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 [ccog.colorado.edu/cas](https://ccog.colorado.edu/cas) with the OpenID Connect well-known endpoint at [ccog.colorado.edu/cas/oidc/.well-known](https://ccog.colorado.edu/cas/oidc/.well-known).

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 [ccog.colorado.edu/gazetteer5/feature-service/openapi/v3/api-docs](https://ccog.colorado.edu/gazetteer5/feature-service/openapi/v3/api-docs). 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 [ccog.colorado.edu/gazetteer5/view/admin/api-docs](https://ccog.colorado.edu/gazetteer5/view/admin/api-docs)

Contacts Operations to view and edit proposers and discoverers

DELETE /api/v1/contact/{id} Delete a contact

GET /api/v1/contact/{id} Describe a contact

GET /api/v1/contact Search for contacts

POST /api/v1/contact Add a contact

PUT /api/v1/contact/{id} Update a contact

Features Operations to view and edit undersea features

DELETE /api/v1/feature/{id} Delete a feature

GET /api/v1/feature/{id} Describe a feature

GET /api/v1/feature Search for features

POST /api/v1/feature Add a feature

PUT /api/v1/feature/{id} Update a feature

Generic Terms Operations to view and edit generic terms

DELETE /api/v1/generic-term/{name} Delete a generic term

GET /api/v1/generic-term/{name} Describe a generic term

GET /api/v1/generic-term Search for generic terms

Execute

Responses

Code	Description	Links
200	OK	No links
	Media type: application/json	
	Example Value	
	<pre>{  "items": [    {      "id": "string",      "version": 0,      "name": "string",      "comments": "string",      "email": "string",      "phone": "string",      "organization": "string",      "timeCreated": "2021-04-05T20:17:09.799Z",      "timeLastUpdated": "2021-04-05T20:17:09.799Z",      "lastUpdatedBy": "string"    }  ],  "page": 0,  "totalPages": 0,  "totalItems": 0,  "itemsPerPage": 0}</pre>	
3xx	Forbidden	No links
	Media type: application/json	
	Example Value	
	<pre>{  "flashErrors": [</pre>	



# Gazetteer V5.0 - Spring, 2022

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

Face-to-face meeting between GEBCO Gazetteer developers and KHOA Beta-Gazetteer developers at SCUFN 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



# Recommendations

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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

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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



# Actions required of SCUFN

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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  
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