

REPORT ON MARINE REGIONS ACTIVITIES

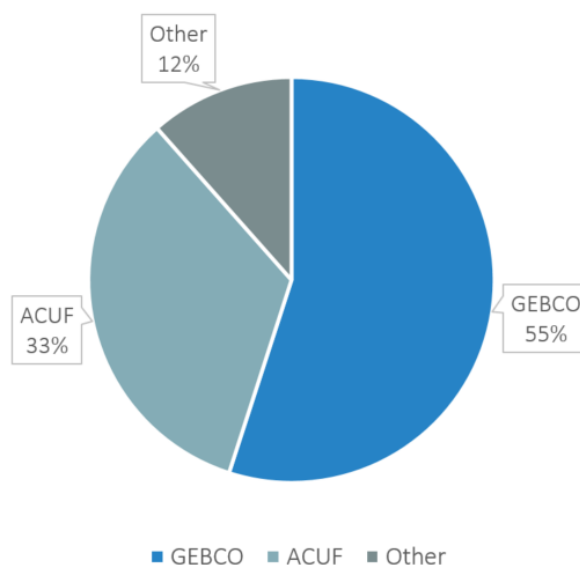
REPORT FOR SCUFN-30 MEETING, GENOA, OCTOBER 2017

UNDERSEA FEATURES: GEBCO AND ACUF

GEBCO-SCUFN and ACUF gazetteers were both integrated in Marine Regions in 2014 and during 2016 an update of GEBCO took place. In 2017 MR undertook a major update of both GEBCO and ACUF gazetteers.

There are currently over 7500 undersea features in Marine Regions Gazetteer. Of these records, around 55% come from the current or past editions of GEBCO and another 33% comes from ACUF. Many features in GEBCO are also present in ACUF and although their main Source in Marine Regions may be GEBCO, they are also tagged as ACUF. The remaining 12% undersea features come from a variety of different sources.

Undersea Features in MR



GEBCO

The new GEBCO update has resulted in a total of 130 new features. These features are mainly a result of the SCUFN-29 meeting, but also from previous ones. Besides the new features, updates were done in the notes about the associated meeting, discoverer, proposer, history and other additional information. A full list with the GEBCO features is available at:

http://www.marineregions.org/gazetteer.php?p=list&source_id=398

GEBCO ISSUES

During the 2016 update we noticed that there were two features in GEBCO with only secondary geometry that do not display correctly in Marine Regions via WMS Service. This issue has not been solved. E.g.: see [Bounty Fan](#) as opposed to another GEBCO feature, [Whale Bank](#).

featureId	MRGID	gebco_name	geometry	secondaryGeometry
6143	33622	Bounty Fan		POLYGON ((...))
6034	26675	Paul Melchior Seamount		POLYGON ((...))

ACUF

Since its integration in 2014 the ACUF gazetteer had not been yet updated in Marine Regions. The update exercise has resulted in 237 new features and 280 new synonyms in Marine Regions. We have also deleted 128 synonyms that are no longer available via the ACUF gazetteer. A full list with the GEBCO features is available at:

http://www.marineregions.org/gazetteer.php?p=list&source_id=338&preferred=1

ACUF ISSUES

DELETED FEATURES

There are a total of 126 features that are no longer available in the ACUF gazetteer but that were part of ACUF in 2014. This represent a problem for Marine Regions because the polivy of the gazetteer regarding the MR unique identifier is that this remains persistent and cannot, therefore, be deleted in principle. MR would like to discuss what is the process to delete features in ACUF and if whether this is likely to happen again. See *Appendix 1* for a full list of delete features (synonyms not included).

NEW DUPLICATES

Amongst the new features encountered in ACUF since its integration in MR in 2014, a total of 60 duplicates have been found. By duplicates, MR means features that have the same name, coordinates and feature designation code (place type). The difference between the UFI of these duplicates is a constant value: -879865. See *Appendix 2* for a full list of new duplicates.

SYNONYM DUPLICATES

A total of 40 duplicate synonyms (20 unique names) were found in the ACUF gazetteer. This means they have the same UFI and FULLNAME but different UNI. See *Appendix 3* for a full list of synonym duplicates.

PROBABLE DUPLICATES

During the update, we have found other features which are potentially duplicates of existing features. These are features that either have the same designation, similar coordinates and / or names. We have temporarily treated them as duplicates and have not created new features in Marine Regions for these cases. This is to avoid deleting features in the future. See *Appendix 4* for a full list of the potential duplicates.

MARITIME BOUNDARIES V9

Despite the strategic significance of EEZs, a standard georeferenced product with maritime boundaries was not available at the global level (Claus et. al, 2014), until it was developed and made available by the Flanders Marine Institute (VLIZ) in 2006 (Deckers and Vanden Berghe, 2006).

In this new release, Marine Regions updates the global Exclusive Economic Zones (EEZ) (version 9), and launches the completely new datasets for Territorial Seas (TS), Contiguous Zones (CZ), Internal Waters (IW) and Archipelagic Waters (AW).

This new version represents an unprecedented increase in the number of used sources from 187 in version 8 to more than 500 source documents in version 9, some of which containing data on multiple baselines. The majority of new sources corresponds to the addition of new baselines, treaties, and joint regimes. The full process of producing the Maritime Boundaries is described in the page Methodology.

10 years ago Marine Regions released the first version of the World's EEZ. In the past decade the number of users has increased from a few hundreds to more than one hundred thousand unique visitors per year. The Marine Region's Maritime Boundaries and its unique identifier have become a standard for many users from academia, to industry, and to civil society. These boundaries and other derived products are used in many projects related to bio-geographic research and conservation, resource exploration and industry, such as the World Register of Marine Species (WoRMS), The Sea Around Us, Global Fishing Watch, The Ocean Health Index, InterRidge or Navionics. With the new release, we hope to further serve the global marine user community working on geospatial analysis.

IHO SEA AREAS V2

IHO Sea Areas and the intersection of those with the EEZs are highly demanded products to be used as geographic units in marine related initiatives (e.g.: distribution of species). Version 9 of the maritime boundaries used a recently release high resolution coastline and, therefore, we decided to update the IHO Sea Areas to match this high resolution coastline as well. The geographical information given by the Limits of Oceans & Seas, Special Publication No. 23, was plotted in a GIS environment and polygons were created.

UNIFORM RESOURCE IDENTIFIER (URI)

To comply with Semantic Web technologies (RDF) and INSPIRE recommendations, we have added HTTP URI to the MRGID. This used to be a number only. HTTP URIs have become the primary way to reference information resources on the web. With the adoption of URIs marineregions.org guarantees:

- The http URI to be available for the long term.
- Not to delete the MRGID, but to redirect a deprecated MRGID.
- Not to change the concept behind such a MRGID.

For more info, see <http://inspire.ec.europa.eu/implementation-identifiers-using-uris-inspire-%E2%80%93-frequently-asked-questions/59309>.

FUTURE ACTIVITIES OF MARINE REGIONS

UNDERSEA FEATURES: GEOGRAPHICAL NAMES BOARD OF CANADA

The Geographical Names Board of Canada ([GNBC](#)) is Canada's national coordinating body responsible for standards and policies on place names. There is a list of 3492 Undersea Features with a total of 3708 names. VLIZ and Marine Regions work closely with different scientists from the Canadian Department of Fisheries and Oceans in the framework of OBIS (Ocean Biogeographic Information System). It has been requested that Marine Regions incorporates the Canadian undersea features in the gazetteer to increase the accuracy of biodiversity records for the Canadian node of OBIS.

MARITIME BOUNDARIES V10

Marine Regions gets and tracks feedback from users with respect to corrections that need to be done in the different data products. This feedback is publically available within the "Known issues" files in MR downloads website ([example](#)), and is used to release regular updates of our products. We also keep track of new treaties or Court Resolutions. The version 10 of the maritime boundaries will be launched in the end of October, one year after the release of V9.

INTERSECTION IHO SEA AREAS V2 AND MARITIME BOUNDARIES V10

A new product with the intersection between the IHO Sea Areas V2 and the EEZs of the Maritime Boundaries V10 will be created.

SHALLOW WATERS OF THE WORLD

Using GEBCO gridded bathymetry data, Marine Regions has created a polygon with the shallow waters of the world, where depth is equal or smaller than 50 meters. This global polygon will be intersected with EEZs and IHO Areas to create geographical units for distribution of coastal species. This has been a request from several users of VLIZ systems such as WoRMS (World Register of Marine Species) or OBIS.

MPATLAS

Marine Regions wishes and has the permission to integrate the data from the Marine Protected Atlas (MPAtlas) initiative. MPAtlas holds a database of over 10000 Marine Protected Areas but with very diverse

designation types, level of protection, etc. Marine Regions is working at the moment towards standardizing MPAtlas data to fit into MR data schema, with the aim to integrate the MPAs in the following year.

APPENDIX 1: DELETED FEATURES FROM ACUF IN THE PERIOD 2014-2017

Name	MARGID	UFI (2014)
Adams Bank	36197	-152208
Albay Shoal	34724	-152250
Alice Reef	36175	-152278
Alicia Annie Reef	33992	-152280
Alida Reef	34264	-152282
Alison Reef	34023	-152284
Altnacraig Shoal	36170	-152300
Amy Douglas Bank	34055	-152343
Antelope Shoal	34714	-152372
Ardasier Reefs	33979	-152390
Bajapa Reef	36120	-152471
Balabac Great Reefs	34280	-152476
Barque Canada Reef	34022	-152512
Barracuda Reef	36105	-152518
Blake Reef	36060	-152635
Bombay Shoal	34036	-152655
Boxall Reef	34060	-152691
Callou Bank	34250	-152767
Carnatic Shoal	33983	-1322786
Central Reef	33999	-152888
Centre Bank	34648	-152892
Chambers Knoll	35964	-152913
Commodore Reef	34012	-153002
Conway Ridge	35922	-153018
Conway Trough	35921	-153019
Cornwallis South Reef	34026	-153033
Cuarteron Reef	33984	-153073
Dallas Reef	34021	-153096
Dickins Shoal	35862	-153179
Don Juan de Austria Shoals	35847	-153208
East Reef	33995	-153253
Ebeling Reef	34602	-153261
Eldad Reef	34117	-153281
Fearless Shoal	35789	-153382
Fiery Cross Reef	33997	-153392
First Thomas Shoal	33996	-153400
Frances Reef	35769	-153439
Gaven Reefs	34750	-153493
Great Danger Bank	35712	-153589
Half Moon Shoal	33993	-153660
Hardy Reef	34072	-153682

Hart Reef	35675	-153690
Hayes Reef	34153	-153712
Hopps Reef	34020	-153797
Iligan Reef	35611	-153853
Investigator Northeast Shoal	33985	-153875
Investigator Shoal	34011	-153877
Iroquois Reef	34269	-153883
Irving Reef	34136	-153884
James Patch	35594	-153920
Java Reef	35591	-153931
Jessie Beazley Reef	34225	-153942
Kahutara Ridge	34533	-153970
Kaikoura Canyon	35575	-153972
Kamonga Shoal	34224	-153985
Ladd Reef	34070	-154100
Livock Reef	34027	-154190
Lizzie Webber	34075	-154191
London Reefs	34008	-154204
Maeander Reef	34506	-154276
Magpie Bank	35458	-154283
Marabout Shoal	34502	-154326
Mariveles Reef	33998	-154346
Memnon Shoal	34213	-154410
Menzies Reef	34005	-154428
Meridian Reef	35423	-154433
Middle Arm	34494	-154455
Middle Reef	35415	-154458
Middle Shoal	35414	-154460
Mischief Reef	34001	-154484
Monmouth Shoals	35392	-154520
Moyune Shoal	35383	-154554
Normanby Bank	35336	-154694
North Danger Reef	34007	-154708
North Luconia Shoals	34002	-154723
North Reef	34039	-154731
North Regent Shoal	35326	-154732
Northwest Danger Shoals	34469	-154743
Northwest Ramos Shoal	34202	-154748
Opouawe Canyon	35287	-154810
Oreti Bank	35285	-154817
Pasig Shoal	35256	-154898

Payne Rock	35249	-154913
Pearl Bank	35247	-154917
Pearson Reef	34006	-154918
Petley Reef	34052	-154962
Pigeon Reef	34034	-154984
Queen of the Sea Bank	35184	-155092
Rakiura Gap	35175	-155109
Riddells Reef	35158	-155162
Rifleman Bank	34017	-155164
Royal Charlotte Reef	34029	-155213
Ruapuke Basin	35141	-155217
Second Thomas Shoal	33990	-155398
Sembuni Reefs	34184	-155412
Sentry Bank	35073	-155417
Shallow Shoal	35066	-155433
Simo Banks	35043	-155500
South Luconia Shoals	34033	-155577
South Reef	34074	-155583
South Reef	35021	-155582
South Regent Shoal	35020	-155584
Southampton Reefs	34083	-155555
Southwest Bank	35012	-155598
Southwestern Banks	34376	-155599

Subi Reef	34128	-155663
Sultan Bank	34984	-155669
Sultana Shoals	34983	-155668
Sunday Bank	34981	-155676
Swallow Reef	33989	-155693
Talantam Shoal	34178	-155717
Thitu Reefs	34038	-155769
Tijitiji Reef	34931	-155787
Tubbataha Reefs	34366	-155867
Tumindao Reef	34895	-155873
Union Reefs	34129	-155906
Valparaiso Shoal	34876	-155922
Vanguard Shoal	34871	-155933
Wakefield Shoal	34833	-156021
Wallace Bank	34168	-156025
West Pasig Shoal	34806	-156080
West Reef	33981	-156082
Western Shoals	34323	-156066
Whareama Bank	34799	-156092
Willcox Bank	34319	-156116
Wright Shoal	34778	-156144

APPENDIX 2: NEW DUPLICATES IN ACUF

LAT	LONG	DSG	FULL_NAME	UFI	UNI	UFI_diff
25.25	-96.16667	SPRU	Matamoros Spur	13632225	17292707	-879865
25.25	-96.16667	SPRU	Matamoros Spur	12752360	16041502	
25.5	-95.96667	CNYU	Harlingen Canyon	13632210	17292692	-879865
25.5	-95.96667	CNYU	Harlingen Canyon	12752345	16041487	
25.58333	-95.25	ESCU	Perdido Escarpment	13632231	17292713	-879865
25.58333	-95.25	ESCU	Perdido Escarpment	12752366	16041508	
25.63333	-95.66667	RDGU	Brownsville Ridge	13632198	17292680	-879965
25.63333	-95.66667	RDGU	Brownsville Ridge	12752233	16041475	
25.71667	-95.75	HLLU	Brownsville Hill	13632197	17292679	-879965
25.71667	-95.75	HLLU	Brownsville Hill	12752232	16041474	
25.81667	-95.6	HLLU	McAllen Hill	13632226	17292708	-879865
25.81667	-95.6	HLLU	McAllen Hill	12752361	16041503	
25.96667	-95.75	MNDU	Los Fresnos Mound	12752359	16041501	879865
25.96667	-95.75	MNDU	Los Fresnos Mound	13632224	17292706	
26	-95.03333	RDGU	Perdido Ridge	13632232	17292714	-879865
26	-95.03333	RDGU	Perdido Ridge	12752367	16041509	
26.03333	-95.18333	MNDU	Corpus Christi Mound	12752341	16041483	879865
26.03333	-95.18333	MNDU	Corpus Christi Mound	13632206	17292688	
26.11667	-95.68333	HLLU	Isabel Hill	13632217	17292699	-879865
26.11667	-95.68333	HLLU	Isabel Hill	12752352	16041494	
26.15	-92.13333	KNLU	Iberia Knoll	12752350	16041492	879865
26.15	-92.13333	KNLU	Iberia Knoll	13632215	17292697	
26.16667	-94.88333	CNYU	Perdido Canyon	12752365	16041507	879865
26.16667	-94.88333	CNYU	Perdido Canyon	13632230	17292712	
26.3	-96.7	FANU	Rio Grande Shelf Fan	13632234	17292716	-879865
26.3	-96.7	FANU	Rio Grande Shelf Fan	12752369	16041511	
26.33333	-95.93333	FANU	Rio Grande Fan	12752368	16041510	879865
26.33333	-95.93333	FANU	Rio Grande Fan	13632233	17292715	
26.4	-94.85	BSNU	Aransas Basin	13632111	17292673	-879885
26.4	-94.85	BSNU	Aransas Basin	12752226	16041468	
26.5	-95.83333	BSNU	Los Cuates Basin	12752358	16041500	879865
26.5	-95.83333	BSNU	Los Cuates Basin	13632223	17292705	
26.66667	-92.88333	BSNU	Butterfly Basin	13632199	17292681	-879965
26.66667	-92.88333	BSNU	Butterfly Basin	12752234	16041476	
26.68333	-92.58333	BSNU	Kaskida Basin	13632221	17292703	-879865
26.68333	-92.58333	BSNU	Kaskida Basin	12752356	16041498	
26.76833	-96.7	BNKU	Mysterious Bank	13632228	17292710	-879865
26.76833	-96.7	BNKU	Mysterious Bank	12752363	16041505	
26.87833	-96.77667	BNKU	Blackfish Bank	12752229	16041471	879885
26.87833	-96.77667	BNKU	Blackfish Bank	13632114	17292676	
26.93333	-95.9	MNDU	San Benito Dome	13632235	17292717	-879865



26.93333	-95.9	MNDU	San Benito Dome	12752370	16041512	
27.04167	-96.70833	BNKU	Dream Bank	13632208	17292690	-879865
27.04167	-96.70833	BNKU	Dream Bank	12752343	16041485	
27.16667	-94.53333	RDGU	Wendish Ridge	12752382	16041524	879865
27.16667	-94.53333	RDGU	Wendish Ridge	13632247	17292729	
27.3	-90.75	BSNU	Cocodrie Basin	13632202	17292684	-879865
27.3	-90.75	BSNU	Cocodrie Basin	12752337	16041479	
27.44	-96.525	BNKU	Southern Bank	12752372	16041514	879865
27.44	-96.525	BNKU	Southern Bank	13632237	17292719	
27.51667	-92.16667	BSNU	Comanche Basin	12752339	16041481	879865
27.51667	-92.16667	BSNU	Comanche Basin	13632204	17292686	
27.51667	-91.2	MNDU	Jackson Mound	13632218	17292700	-879865
27.51667	-91.2	MNDU	Jackson Mound	12752353	16041495	
27.53333	-95.63333	VALU	East Breaks Valley	12752344	16041486	879865
27.53333	-95.63333	VALU	East Breaks Valley	13632209	17292691	
27.54167	-96.475	BNKU	Hospital Rock Bank	13632214	17292696	-879865
27.54167	-96.475	BNKU	Hospital Rock Bank	12752349	16041491	
27.55	-92.41667	MNDU	Comanche Mound	13632205	17292687	-879865
27.55	-92.41667	MNDU	Comanche Mound	12752340	16041482	
27.55	-91.76667	VALU	Jeanerette Valley	13632220	17292702	-879865
27.55	-91.76667	VALU	Jeanerette Valley	12752355	16041497	
27.57333	-96.47667	BNKU	North Hospital Bank	13632229	17292711	-879865
27.57333	-96.47667	BNKU	North Hospital Bank	12752364	16041506	
27.58333	-95.5	FANU	Brazos-Colorado Fan	12752230	16041472	879885
27.58333	-95.5	FANU	Brazos-Colorado Fan	13632115	17292677	
27.58333	-93.75	BSNU	Alabama-Coushatta Basin	13632108	17292670	-879885
27.58333	-93.75	BSNU	Alabama-Coushatta Basin	12752223	16041345	
27.58333	-91.16667	VALU	Jackson Valley	12752354	16041496	879865
27.58333	-91.16667	VALU	Jackson Valley	13632219	17292701	
27.59167	-96.45167	BNKU	Aransas Bank	13632110	17292672	-879885
27.59167	-96.45167	BNKU	Aransas Bank	12752225	16041347	
27.6	-92.78333	BSNU	Indianola Basin	13632216	17292698	-879865
27.6	-92.78333	BSNU	Indianola Basin	12752351	16041493	
27.61667	-92	BSNU	Addai Caddo Basin	13632200	17292682	-879965
27.61667	-92	BSNU	Addai Caddo Basin	12752235	16041477	
27.63333	-94.31667	MNDU	TSC Mound	13632241	17292723	-879865
27.63333	-94.31667	MNDU	TSC Mound	12752376	16041518	
27.65	-94.01667	MNDU	Lipan-Apache Mound	12752224	16041346	879885
27.65	-94.01667	MNDU	Lipan-Apache Mound	13632109	17292671	
27.66667	-92.5	BSNU	Cherokee Basin	12752236	16041478	879965
27.66667	-92.5	BSNU	Cherokee Basin	13632201	17292683	
27.66667	-90.81667	MNDU	Abbeville Mound	13632107	17292669	-879885
27.66667	-90.81667	MNDU	Abbeville Mound	12752222	16041344	
27.675	-96.27333	BNKU	South Baker Bank	13632236	17292718	-879865

27.675	-96.27333	BNKU	South Baker Bank	12752371	16041513	
27.7	-94.4	SCNU	TSC Seachannel	13632242	17292724	-879865
27.7	-94.4	SCNU	TSC Seachannel	12752377	16041519	
27.71667	-91.95	MNDU	Wichita Mound	13632248	17292730	-879865
27.71667	-91.95	MNDU	Wichita Mound	12752383	16041525	
27.73333	-91.5	BSNU	Assumption Basin	13632112	17292674	-879885
27.73333	-91.5	BSNU	Assumption Basin	12752227	16041469	
27.75	-92.25	BSNU	Tunica-Biloxi Basin	12752378	16041520	879865
27.75	-92.25	BSNU	Tunica-Biloxi Basin	13632243	17292725	
27.75	-91.03333	BSNU	Abbeville Basin	13632106	17292668	-879885
27.75	-91.03333	BSNU	Abbeville Basin	12752221	16041343	
27.83333	-93.68333	BNKU	Horseshoe Bank	13632213	17292695	-879865
27.83333	-93.68333	BNKU	Horseshoe Bank	12752348	16041490	
27.89167	-93.45	BNKU	Twenty-Eight Fathom Bank	13632244	17292726	-879865
27.89167	-93.45	BNKU	Twenty-Eight Fathom Bank	12752379	16041521	
27.91667	-95.75	FANU	Brazos-Colorado Shelf Fan	13632116	17292678	-879885
27.91667	-95.75	FANU	Brazos-Colorado Shelf Fan	12752231	16041473	
27.95	-90.81667	BSNU	Dernieres Basin	13632207	17292689	-879865
27.95	-90.81667	BSNU	Dernieres Basin	12752342	16041484	
28	-89.78333	VALU	Baton Rouge Valley	12752228	16041470	879885
28	-89.78333	VALU	Baton Rouge Valley	13632113	17292675	
28.06667	-94.53333	BNKU	Thirty-Two Fathom Bank	13632239	17292721	-879865
28.06667	-94.53333	BNKU	Thirty-Two Fathom Bank	12752374	16041516	
28.06667	-93.91667	BNKU	Coffee Lump Bank	12752338	16041480	879865
28.06667	-93.91667	BNKU	Coffee Lump Bank	13632203	17292685	
28.13833	-93.49167	BNKU	Twenty-Nine Fathom Bank	12752380	16041522	879865
28.13833	-93.49167	BNKU	Twenty-Nine Fathom Bank	13632245	17292727	
28.55	-89.91667	KNLU	Mid-Canyon Knoll	13632227	17292709	-879865
28.55	-89.91667	KNLU	Mid-Canyon Knoll	12752362	16041504	
28.61667	-89.86667	SPRU	Hoffa Spur	12752347	16041489	879865
28.61667	-89.86667	SPRU	Hoffa Spur	13632212	17292694	
28.66667	-89.81667	BNKU	Hoffa Bank	12752346	16041488	879865
28.66667	-89.81667	BNKU	Hoffa Bank	13632211	17292693	
28.75	-94.4	BNKU	Thomas Bank	13632240	17292722	-879865
28.75	-94.4	BNKU	Thomas Bank	12752375	16041517	

APPENDIX 3: SYNONYM DUPLICATES IN ACUF

FULL_NAME	UFI	UNI	MRGID
Гора Дзимму	-153943	6596504	6049
Гора Дзимму	-153943	9312836	6049
Южная Котловина	-155601	9338976	7219
Южная Котловина	-155601	6596317	7219
Западно-Индийский Хребет	-155600	6596318	7288
Западно-Индийский Хребет	-155600	9339108	7288
Идзу-Огасавара Желоб	-153900	9334540	6043
Идзу-Огасавара Желоб	-153900	6596511	6043
Котловина Беллинсгаузена	-155564	9339221	11803
Котловина Беллинсгаузена	-155564	6596322	11803
Сомалийская Котловина	-155538	9339033	34068
Сомалийская Котловина	-155538	6596329	34068
Филиппинский Желоб	-154970	9338924	6952
Филиппинский Желоб	-154970	6596373	6952
Филиппинская Котловина	-154969	6596374	6951
Филиппинская Котловина	-154969	9338918	6951
Лабрадорская Котловина	-154089	6596481	4551
Лабрадорская Котловина	-154089	9339142	4551
Курило-Камчатский Желоб	-154084	9334587	7926
Курило-Камчатский Желоб	-154084	6596484	7926
Марианский Желоб	-154337	6596465	7378
Марианский Желоб	-154337	9334525	7378
Nai-Ma T'an	-155393	-238483	33978
Nai-ma T'an	-155393	14527823	33978
Гора Камму	-153983	9312831	6065
Гора Камму	-153983	6596498	6065
Капская Котловина	-152795	6596619	6848
Капская Котловина	-152795	9339130	6848
Гора Абботт	-152194	6596677	6557
гора Абботт	-152194	9318978	6557
Восточно-Марианская Котловина	-153248	9338356	6362
Восточно-Марианская Котловина	-153248	6596569	6362
Аравийская Котловина	-152385	6596656	5762
Аравийская Котловина	-152385	9338981	5762
Чилийская Котловина	-152937	6596601	6002
Чилийская Котловина	-152937	9338347	6002
Ангольская Котловина	-152357	6596660	7178
Ангольская Котловина	-152357	9339046	7178
Каньон Габон	9256031	6596259	5117
Каньон Габон	9256031	9334583	5117

APPENDIX 4: PROBABLE DUPLICATES IN ACUF

FULL_NAME	UFI	UNI	LAT	LONG	DSG	MRGID
棕色滩	-152721	14422672	10.65	117.45	RFU	5833
Brown Bank	-152721	-236856	10.65	117.45	RFU	5833
Brown	-152721	14570294	10.65	117.45	RFU	5833
Bãi Cạn Nâu	-152721	14570295	10.65	117.45	RFU	5833
Banc Brown	-152721	14569750	10.65	117.45	RFU	5833
Brown Breaker	-152721	14569749	10.65	117.45	RFU	5833
Brown Reef	-152721	-236860	10.65	117.45	RFU	5833
Hsien-hou T'an	-152721	-238721	10.65	117.45	RFU	5833
Kayumanggi Bank	-152721	14407070	10.65	117.45	RFU	5833
Zongse Tan	-152721	14422671	10.65	117.45	RFU	5833
Zong Tan	-152721	14422669	10.65	117.45	RFU	5833
棕滩	-152721	14422670	10.65	117.45	RFU	5833
棕灘	-152721	14422673	10.65	117.45	RFU	5833
Hsien-hou T'an	-1322838	14766487	10.616667	117.633333	RFU	5833
彬礁	12012005	14766491	10.566667	117	RFU	5833
Brown	12012005	14766489	10.566667	117	RFU	5833
Bin Jiao	12012005	14766490	10.566667	117	RFU	5833
Brown Reef	12012005	14766488	10.566667	117	RFU	5833
Britannia Tablemounts	-152709	-236837	-28.25	155.5	TMSU	5848
Brittania Guyots	-152709	-236838	-28.25	155.5	TMSU	5848
Brittania Tablemounts	-152709	-236840	-28.25	155.5	TMSU	5848
North Tasman Seamounts	-152709	-240471	-28.25	155.5	TMSU	5848
Britannia Guyots	-152709	-236834	-28.25	155.5	TMSU	5848
Brittania Guyots	-152708	-236839	-28.333333	155.583333	TMTU	5848
Britannia Tablemount	-152708	-236836	-28.333333	155.583333	TMTU	5848
Britannia Bank	-152708	-236833	-28.333333	155.583333	TMTU	5848
Britannia Guyots	-152708	-236835	-28.333333	155.583333	TMTU	5848
Zenkevich Rise	-156191	-243017	51	161	RISU	7789
Hokkaido Rise	-153786	-238668	46	155	RISU	7789
Zenkevich Rise	-153786	-243016	46	155	RISU	7789
Cordillera de Colón	152989	13291459	2	-96	RDGU	24839
Ясменка	152989	12283217	2	-96	RDGU	24839
Yasmenka	152989	187356	2	-96	RDGU	24839
Colón Ridge	-152989	-237328	2	-96	RDGU	24839
Dorsal de Galápagos	-152989	13291452	2	-96	RDGU	24839
Galapagos Ridge	-152989	-238148	2	-96	RDGU	24839
Harrison Basin	13632303	17292872	26.583333	-94	BSNU	35677
Harrison Basin	-153685	-238521	27.416667	-91.016667	BSNU	35677
Anderson Basin	13632292	17292861	26.183333	-92.433333	BSNU	36152
Anderson Basin	-152349	-236169	26.316667	-93.716667	BSNU	36152