

BSBD-WG Report to the BSHC 22nd Conference

The Baltic Sea Bathymetry Database Working Group has not held any meeting during the last year.

1. Status of the work of BSBDWG

Since the last conference the portal has been up and running without interruption on the portal itself. Since some time now we have had a problem that download requests sometimes gets a timeout. The few persons that has contacted us regarding this we have referred them to use the development machine instead. The cause is unknown and restarts of the machine have not solved the issue. The problem will be solved at next update of the model.

The bathymetric model at present time is the same as the version published in December 2013 but work is ongoing for an update of the 500m model without any changes of the portal itself.

We have continued to use the Amazon Web Services with the same setup and size of servers. Together with the server for the BSHC webpage and development server, the monthly cost is presently about 250\$.

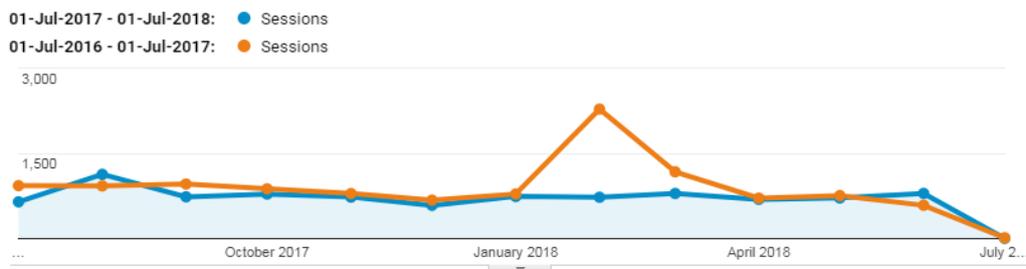
2. The use of the bathymetric database

2.1. The portal

The portal address remains as data.bshc.pro

The site is fairly widely used and the number of visits on the portal between the first of July 2017 and first of July 2018 is 9085 (11 991 visits 2017) made by 6 477 unique visitors (8 757 visitors 2018).

The peak number of daily visits during the period originates from the 15:th of August 2017. 319 visits were made on one day.



The last year Sweden, Germany and Poland has been the most frequent users of the BSBD portal and together they stand for 51.36% of the visitors.

Country	Users	% Users
1.  Sweden	2,103	32.30%
2.  Germany	666	10.23%
3.  Poland	575	8.83%
4.  United States	350	5.38%
5.  Finland	343	5.27%
6.  Denmark	231	3.55%
7.  France	229	3.52%
8.  United Kingdom	214	3.29%
9.  Russia	156	2.40%
10.  Hungary	149	2.29%

Figure 1 Top ten countries using the portal July 2017-July 2018

The number of registered active links to the portal has decreased somewhat to 101 (previous year 133), *except from these we know that in some places our portal is mentioned and the address is given as inactive links (plain text).*

- 62% (46% for previous year) of the visitors arrive to the portal from one of the active links.
- 12% of the visitors, that use active links to reach the portal, use the link on the BSHC homepage.

2.2.Downloads

We have not made any statistic images showing the areas and frequencies for downloads the last years.

We have had 6 support questions sent by email to us and they mainly concerns downloads and/or questions about higher resolutions.

2.3.Use of OGC services

We know that the WMS service is used by several users. Some users also have an internal cache service for the use in their own GIS systems. This internal cache reduces the number of downloaded tiles from our servers as they only need to download each tile once.

As an example the number of DNS-Queries for the month of April was 100 758 (102,324 year 2017, 37,689 year 2014, 46,847 year 2015 and 42,875 year 2016), This is only an indication and not an actual number of requests to the server due to external caching.

The HELCOM map portal (uses ESRI server) can still not make use of external WMS services and for that reason redistributes the BSBD by themselves and we do not know the frequency of users on that service. For the future it would be the best solution if they could use our WMS services for use in their portal and new discussions about this should be started as soon as we have a new release, otherwise we will have to send them a new dataset as it becomes available.

3. Work Group participants

Mr. Hans Öiås has during the last year been acting as the Chair of the WG. The activity during the year has been low.

The manning at SMA has, except the chair been Dr. Benjamin Hell

The current WG members and points of contact is:

Country	Name	E-mail address
Denmark	Jens Peter Weiss Hartmann (Used as point of contact)	jepha@gst.dk
Estonia	Peeter Väling Signe Paevere	peeter.valing@vta.ee signe.paevere@vta.ee
Finland	Juha Tiihonen	juha.tiihonen@fta.fi
Germany	Jürgen Monk	juergen.monk@bsh.de
Latvia	Normunds Duksis	normunds.duksis@lhd.lv
Lithuania	Viktoras Liulys Mindaugas Zakarauskas (Used as points of contact)	viktoras.liulys@msa.lt mindaugas.zakarauskas@msa.lt
Poland	Marcin Banaszak	m.banaszak@bhmw.gov.pl
Russia	Capt. Sergey Travin (Used as point of contact)	main@gunio.ru
Sweden	Hans Öiås Benjamin Hell	Hans.oias@sjofartsverket.se Benjamin.hell@sjofartsverket.se

Denmark, Lithuania and Russia have not appointed participants for the WG.

4. Performed work

We sent out a request for data and also requested information about to what resolutions we were allowed to deliver data in. We have received new datasets from Finland, Estonia and Lithuania. A question to Lithuania to get permission to extract data from ENC cells to fill the sparse areas has still not been answered. The BSBD 500m grid has yet not been updated.

We are currently working on producing a new 500m model using the same datasets that was used for the EMODNet High Resolution Bathymetry.

5. Presentations

No presentation has been held or is planned for the near future.

6. Cooperation's

6.1.GEBCO

GEBCO recognizes the BSHC database as a Regional Mapping Project. No update of the GEBCO grid has been made during the last year.

6.2.EMODnet

BSBD 0.9.3 is still used in the latest EMODnet phase 2 model. The EMODnet High Resolution Seabed Mapping model will be published soon.

SMA as well as Germany and Latvia is a partners in the EMODnet “High Resolution Seabed Mapping” (phase III). SMA has the role of coordinator for the Baltic.

7. Financing

SMA can continue to keep the portal alive, update the model and also some additional development. The main issue has been to find time to do the needed work.

8. Future plans

Soon come out with a updated 500m model and rather soon after that to create a 200m model that is less smoothed than the Emodnet model.

A new version will also cover the Norwegian areas of Skagerrak and include data delivered from Lithuania.

An updated coastline will come together with a 200m resolution grid and basin name presentations.

We have on our development environment included the basin borders and names for presentation in the portal, but these needs to be adjusted to the coordinates decided by the BSICCWG before publication in a coming version 0.9.x of the portal.

- Update the BSBD 500 m model.
- Include at least data from Russian ENC cells, if that will be allowed..
- We still hope to get better, un-modelled dataset from Denmark and extracts from Charts/ENC east of Bornholm where no other digital data exists.
- Optimization of the production tools and documentation.
- Compile and provide additional bathymetric layers with higher resolution where the data providers and legislation permit (Germany and Estonia). Possibly also a homogenous version that contains an up-sampled version of all other areas.
- Enhance the coastline for masking and presentation in the portal. The present coastline is taken only from Swedish nautical charts. Except for that we have received coastlines in vector format from Estonia, Poland and Germany. The separate coastlines need to be stitched together and land areas to be created to be used as masks in the portal presentation.

9. Actions for the BSHC 23d Conference

The BSHC 23d Conference is requested to:

1. Note this report
2. Consent that the work with the portal continues as stated above using the WG members as a reference group.
3. Endorse future cooperation with GEBCO and EMODnet.