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Input data for the definition of EcoQUs with respect to eutrophication		atmospheric climate, oceanic climate, hydrological variables, biogeochemical variables	all variables describing the three-dimensional atmospheric and oceanic climate, including hydrological and biogeochemical variables	for the atmosphere Europe, parts of the North Atlantic, for the ocean Baltic Sea including Kattegat	44km in the atmosphere, 11km in the ocean	1961-1990, 2071-2100	6-hourly for atmospheric variables, 2-daily for oceanic variables	RCAO, RCO-SCOBI	n/i	January, 2011	restricted only for members of the project consortium 2009-2012	Markus Meier <markus.meier@smhi.se> SMHI	computer disk at the National Swedish Supercomputer Centre	AMBER	C6		
Meta-data-set NOW (Present climate)	Simulations with the biogeochemical model ERGOM, driven by the output of MONERIS for the Odra and Curonian Lagoon	Regional ecosystem model, Odra Lagoon, Curonian Lagoon	about 14 biogeochemical variables	Odra Lagoon, Curonian Lagoon, partly Baltic Sea coastal waters	depends on region, for the Odra Lagoon up to 200 x 200m	1960- A.D.	hourly			2005 Last update: in progress	On request from the contact.	PD Dr. Gerald Schernewski Leipzig Institute for Baltic Sea Research Seestraße 15, D-18119 Rostock/Warnemünde Email: gerald.schernewski@io-warnemuende.de Frank Schäffer (PHD-Student) Leipzig Institute for Baltic Sea Research Seestraße 15, D-18119 Rostock/Warnemünde Email: frank.schaeffer@io-warnemuende.de	If ready, data available from contact person	AMBER		riverine load simulation with MONERIS	
Meta-data-set FUTURA (Present and future climate)	Simulations with the coupled atmosphere-ice-ocean regional climate model RCAO, driven by the output of either ERA-40 or the global climate simulations ECHAM5 and HadCM3 with the greenhouse gas emission scenarios A2 and B2 Impact simulations with the hydrological model HBV and the coupled physical-biogeochemical model RCO-SCOBI driven by RCAO	Regional climate model, coupled atmosphere-ice-ocean model	Variables describing the three-dimensional atmospheric and oceanic climate, including hydrological and biogeochemical variables	Europe, parts of the North Atlantic	Rotated grid covering the entire Baltic Sea catchment area Spatial resolution: 44 km in the atmosphere and 11 nautical miles in the ocean	1961-1990, 2071-2100	6-hourly for atmospheric variables, 2-daily for oceanic variables			2003 (RCAO), 2008 (RCO-SCOBI) Last update: New scenarios will be available during 2010 (ongoing work).	Available on request, restricted to project consortium 2009-2012	Dr. Markus Meier Swedish Meteorological and Hydrological Institute, Research Department SE-60176 Norrköping, Sweden Email: markus.meier@smhi.se Dr. Anders Höglund Swedish Meteorological and Hydrological Institute, Research Department SE-60176 Norrköping, Sweden Email: anders.hoglund@smhi.se	Due to data volume, data available from the Rosby Centre (RCAO, HBV) or from the Oceanographic Research Unit at SMHI (RCO-SCOBI) via the contact persons	AMBER		Climate simulation with ECHAM4/OPYC3, HadAM3H	
Meta-data-set FUTURA II (Present and future climate)	Simulations with the coupled atmosphere-ice-ocean regional climate model RCAO, driven by the output of either ERA-40 or the global climate simulations ECHAM5 and HadCM3 with the greenhouse gas emission scenarios A2 and A1B: Hindcast simulation: ERA-40 downscaled with RCA to 25km Scenarios: RCAO-ECHAM5 A1B_3, 25km RCAO-HadCM3 A1B, 25km RCAO-ECHAM5 A2, 25km RCAO-ECHAM5 A1B_1, 25km Impact simulations with the coupled physical-biogeochemical model RCO-SCOBI driven by RCAO in preparation	Regional climate model, coupled atmosphere-ice-ocean model	Variables describing the three-dimensional atmospheric and oceanic climate, including biogeochemical variables	Europe, parts of the North Atlantic	Rotated grid covering the entire Baltic Sea catchment area Spatial resolution: 25 km in the atmosphere and 2 nautical miles in the ocean (RCO-SCOBI)	1961-2099	6-hourly for atmospheric variables, 2-daily for oceanic variables	coupled atmosphere-ice-ocean regional climate model RCAO,	driven by the output of either ERA-40 or the global climate simulations ECHAM5 and HadCM3 with the greenhouse gas emission scenarios A2 and A1B:	2010 (RCAO), 2011 (RCO-SCOBI) Last update: New scenarios will be available during 2011 (ongoing work).	Available on request, restricted to project consortium 2009-2012	Dr. Markus Meier Swedish Meteorological and Hydrological Institute, Research Department SE-60176 Norrköping, Sweden Email: markus.meier@smhi.se Dr. Anders Höglund Swedish Meteorological and Hydrological Institute, Research Department SE-60176 Norrköping, Sweden Email: anders.hoglund@smhi.se	Data available from the Oceanographic Research Unit at SMHI (RCO-SCOBI) via the contact person	AMBER		Climate simulation with ECHAM5, HadCM3	
Meta-data-set ESTAS (Nutrient load scenarios for the Curonian lagoon)	Simulations using NPZD model ESTAL/ALUKAS (2008), consisting of two submodels; a transport model and a coupled ecological model comprising inorganic nutrient pool, organic substances and three groups of phytoplankton and zooplankton Scenarios: Name TN loads TP loads(t/year) N20 10777.07 1938.07 N50 26942.67 1938.07 P1 53885.33 19.38 P5 53885.33 96.90 P10 53885.33 193.81 P15 53885.33 290.71 P50 53885.33 969.04 P75 53885.33 1453.55 P100N100 53885.33 1938.07 P50N50 26942.67 969.04 P40N40 21554.13 775.23 P30N30 16165.60 581.42 P20N20 10777.07 387.61 P1N1 538.85 19.38 P50N10 5388.53 969.04 P50N100 53885.33 969.04 P5N20 10777.07 96.90	NPZD model, nutrient load scenarios	22 biogeochemical variables 3 phytoplankton and 1 zooplankton groups	Europe, parts of the North Atlantic	Spatial extension: Curonian lagoon Spatial resolution: 12 boxes for biological/chemical variables spread over lagoon. Fluxes between boxes calculated using FEM model	1999-2001	hourly			2010. Last update: New scenarios including climate variations will be available during 2011 (ongoing work).	Available on request, restricted to project consortium 2009-2012	Prof. Dr. Artūras Razinkovas Coastal Research & Planning Institute, Klaipėda University LT-Klaipėda, Lithuania Email: art@corpi.ku.lt	Data available from the Coastal Research & Planning Institute, Klaipėda University via the contact person	AMBER			
Model forcing: Scenario RCM data to the CSIM model	Daily data including 2-m temperature and precipitation. These are taken from coupled atmosphere-ocean general circulation models (AOGCM) dynamically downscaled by the regional climate model (RCM) RCA3. The AOGCMs are ECHAM5/OPYC3, HadCM3 and CCSM3 with the greenhouse gas emission scenarios A1B, A2 and B1. The data are derived as input to the catchment nutrient model CSIM.	Climate scenarios, Baltic Sea catchment, CSIM, RCA3.	2-meter air temperature, precipitation	A rectangular box including the Baltic Sea catchment area.	0.44° grid (50 x 50 km).	1961 – 2100	Daily.	Regional climate model (RCM) RCA3.	Coupled atmosphere-ocean general circulation models (AOGCM) ECHAM5/OPYC3, HadCM3 and CCSM3 with the greenhouse gas emission scenarios A1B, A2 and B1.	December, 2009.	data available from contact persons.	Dr. Björn Carlsson, Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden, Email: Bjorn.Carlsson@met.uu.se; Dr. Anna Rutgersson, Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden, Email: Anna.Rutgersson@met.uu.se	Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden	Baltic-C	5		
Model forcing: Scenario RCM data to the LPI-GUESS model	GRIB files of daily data, including 2-m temperature, soil temperature, precipitation and downward shortwave radiation. These are taken from coupled atmosphere-ocean general circulation models (AOGCM) dynamically downscaled by the regional climate model (RCM) RCA3. The AOGCMs are ECHAM5/OPYC3, HadCM3 and CCSM3 with the greenhouse gas emission scenarios A1B, A2 and B1. The data are derived as input to the vegetation model LPI-GUESS.	Climate scenarios, Baltic Sea catchment, LPI-GUESS, RCA3.	2-meter temperature, soil temperature, precipitation and downward shortwave radiation.	A rectangular box including the Baltic Sea catchment area.	0.44° grid (50 x 50 km).	1961 – 2100	Daily.	Dynamically downscaled climate simulation with ECHAM5/OPYC3 (A1B, A2, B1), HadCM3 (A1B) and CCSM3 (A1B) using RCA3. Data derived from scenario simulations from the ENSEMBLES project (http://www.ensembles-eu.org/) and Rosby centre at SMHI (http://www.smhi.se/en/Research/Research-departments/climate-research-rossby-centre).		December, 2009.	data available from contact persons.	Dr. Björn Carlsson, Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden, Email: Bjorn.Carlsson@met.uu.se; Dr. Anna Rutgersson, Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden, Email: Anna.Rutgersson@met.uu.se	Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden	Baltic-C	5		
Model forcing: Scenario RCM data to the PROBE-Baltic Model	ASCII files of 3-hourly data including 2-m temperature, wind, humidity, total cloud cover, and precipitation. These are taken from coupled atmosphere-ocean general circulation models (AOGCM) dynamically downscaled by the regional climate model (RCM) RCA3. The AOGCMs are ECHAM5/OPYC3, HadCM3 and CCSM3 with the greenhouse gas emission scenarios A1B, A2 and B1. The data are derived as input to the ocean model PROBE-Baltic. Data are derived for the central point in each basin. Monthly atmospheric CO2 is represented by a station in southern Baltic Sea and the emission scenarios A1B, A2 and B1. Also the sea-level pressure is given at Öxvå and Deblit.	Climate scenarios, Baltic Sea, PROBE-Baltic, RCA3.	2-m temperature and humidity, 10-m wind, total cloud cover, precipitation, atmospheric CO2, air pressure at sea-level	Baltic Sea including Kattegat, Belt Sea and Øresund.	13 basins in the Baltic Sea.	1961-2100.	3-hourly.	Dynamically downscaled climate simulation with ECHAM5/OPYC3 (A1B, A2, B1), HadCM3 (A1B) and CCSM3 (A1B) using RCA3. Data derived from scenario simulations from the ENSEMBLES project (http://www.ensembles-eu.org/) and Rosby centre at SMHI (http://www.smhi.se/en/Research/Research-departments/climate-research-rossby-centre).		December, 2009.	data available from contact persons.	Dr. Björn Carlsson, Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden, Email: Bjorn.Carlsson@met.uu.se; Dr. Anna Rutgersson, Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden, Email: Anna.Rutgersson@met.uu.se	Uppsala University, Department of Earth Sciences, Villavägen 16, SE-752 36 Uppsala, Sweden	Baltic-C	5		

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Baltic-C Meta-data-set: CSIM model results	Monthly data on water, N (nitrogen), P (phosphorous), CT (dissolved inorganic carbon), Alk (alkalinity) and DOC (dissolved organic carbon) fluxes for 7 basins draining to the Baltic Sea. Data covers the time period 1961 to 2099 for 15 different scenarios.	Climate scenarios, Baltic Sea catchment, CSIM, RCA3.	ASCII files with monthly data. One file for each basin and scenario. Scenarios are given a number 1-15 which is followed by _ and two letters. For example 15_KT, which means scenario 15 for basin Kattegat. Other letters are BB= Bothnian Bay, BS= Bothnian Sea, GF=Gulf of Finland, GR=Gulf of Riga, BP=Baltic Proper and DS=Danish Straits. Scenarios; No GCM GCM bias correction, factor addressed 1 ECHAM A1B #1 (baseline scenario) 2 ECHAM A1B #2 natural variability 3 ECHAM A1B #3 natural variability 4 HadCM A1B climate system 5 CCSM A1B climate system 6 ECHAM A2 emissions (higher) 7 ECHAM B1 emissions (lower) 8 ECHAM A1B #1 land cover change 9 ECHAM A1B #1 nutrient loads change 10 ECHAM A2 multi-factor, "business as usual" 11 ECHAM A1B #1 multi-factor, "balanced policy" 12 ECHAM B1 multi-factor, "environmental" 13 ECHAM A2 bias-corrected version of Scenario 10 14 ECHAM A1B #1 bias-corrected version of Scenario 11 15 ECHAM B1 bias-corrected version of Scenario 12 Columns in text files are; 1. date (yyyy-mm-dd) 2. Julian day 3. catchment area (m2)	Baltic Sea catchment area.	All major river basins of the Baltic Sea catchment area. Spatial resolution: Variable, according to catchment area.	1961–2099.	Monthly.			May, 2011.	On request from the contact.	Prof. Carl-Magnus Mörth Baltic Nest Institute/Stockholm Resilience Centre Stockholm University SE-106 91 Stockholm Sweden Email: carl.magnus.morth@gmail.com Prof. Christoph Humborg Baltic Nest Institute/Stockholm Resilience Centre Stockholm University SE-106 91 Stockholm Sweden Email: christoph.humborg@gmail.com	Downloadable from FTP-site and available from contact persons.	Baltic-C	4		
Baltic-C Meta-data-set: Model forcing: Acid deposition to the CSIM model	Monthly data including deposition of oxidized sulphur and nitrogen, reduced nitrogen, chlorine and base cations. The data are derived as input to the catchment nutrient model CSIM.	Baltic Sea catchment, acid deposition, sulphur, nitrogen, chloride, base cations, sodium, magnesium, potassium, calcium, CSIM, EMEP, EDGAR, HYDE.	Data and arrays: ASCII files of wet and dry deposition of oxidized sulphur and nitrogen, reduced nitrogen, and wet deposition of base cations and chloride. Coordinates are defined in specific files. 11.) Reference to other data sets: Data for the period 1990–2006 are modelled (acid deposition) by the EMEP transport model (http://www.emep.int/OpenSource/index.html) or interpolated measurements (chloride, base cations, precipitation and pH) within the EMEP co-operative programme (http://tarantula.nilu.no/projects/ccc/emepdata.html). For the period 1960–1989 acid deposition data are constructed from emissions reported by EDGAR-HYDE (http://www.mnp.nl/edgar/model/). Precipitation for this period is given by the average monthly fields for the 1990–2006 period. Chloride and base cations are assumed constant with the average monthly fields from the 1990–2006 period.	Baltic Sea catchment area	Spatial extension: 1 rectangular box including the Baltic Sea catchment area. Spatial resolution: Gridded: 50 x 50 km for sulphur and nitrogen and 1° x 1° for other compounds.	1960–2006.	Monthly.			Created: September, 2009. Last update: Updates available in spring, 2010	On request from the contact.	Dr. Björn Carlsson Uppsala University, Department of Earth Sciences Villavägen 16 SE-752 36 Uppsala, Sweden Email: Bjorn.Carlsson@met.uu.se Dr. Anna Rutgersson Uppsala University, Department of Earth Sciences Villavägen 16 SE-752 36 Uppsala, Sweden Email: Anna.Rutgersson@met.uu.se	Due to data volume, data available from contact persons	Baltic-C	4	The construction of the data set is presented and evaluated in Carlsson et al. (2010), Carlsson, B. et al., 2010. Depositions of acidifying and neutralising compounds over the Baltic Sea drainage basin between 1960 and 2006. In manuscript.	
Baltic-C Meta-data-set: Model forcing: Acid deposition to the PROBE-Baltic Model	Monthly data including deposition of oxidized sulphur and nitrogen, reduced nitrogen, pH in precipitation and atmospheric CO2 concentration. The data are derived as input to the ocean model PROBE-Baltic.	Baltic Sea, acid deposition, sulphur, nitrogen, pH, atmospheric carbon dioxide concentration, PROBE-Baltic.	ASCII files of dry and wet deposition of oxidized sulphur and nitrogen, reduced nitrogen and pH in precipitation. The originally gridded fields are averaged for each basin. CO2 is represented by a station in southern Baltic Seas. 11.) Reference to other data sets: Data for the period 1990–2006 are modelled (acid deposition) by the EMEP transport model (http://www.emep.int/OpenSource/index.html). Precipitation is taken from interpolated measurements within the EMEP co-operative programme (http://tarantula.nilu.no/projects/ccc/emepdata.html). For the period 1960–1989 acid deposition data are constructed from emissions reported by EDGAR-HYDE (http://www.mnp.nl/edgar/model/). Precipitation for this period is given by the average monthly fields for the 1990–2006 period. The pH in the precipitation is calculated from concentrations of base cations, chloride, oxidised sulphur and nitrogen and ammonia from the interpolated EMEP measurements, using a simple model. Chloride and base cations are assumed constant with the average monthly fields from the 1990–2006 period. Atmospheric CO2 concentration is approximated by a constructed data set for a station in southern Baltic Sea (Rutgersson et al., 2009).	Baltic Sea.	Spatial extension: Baltic Sea including Kattegat, Belt Seas and Øresund. Spatial resolution: 13 basins in the Baltic Sea	1960–2006.	Monthly.			September, 2009. Last update: Updates available in spring, 2010.	On request from the contact.	Dr. Björn Carlsson Uppsala University, Department of Earth Sciences Villavägen 16 SE-752 36 Uppsala, Sweden Email: Bjorn.Carlsson@met.uu.se Dr. Anna Rutgersson Uppsala University, Department of Earth Sciences Villavägen 16 SE-752 36 Uppsala, Sweden Email: Anna.Rutgersson@met.uu.se	Due to data volume, data available from contact persons.	Baltic-C	4	Carlsson, B. et al., 2010. Depositions of acidifying and neutralising compounds over the Baltic Sea drainage basin between 1960 and 2006. In manuscript. Rutgersson, A., M. Norman, and G. Åström, 2009. Atmospheric CO2 variation over the Baltic Sea and the impact on air-sea exchange. <i>Bor. Env. Res.</i> , 14, 238–249.	
Baltic-C Meta-data-set: Daily temperature, ice, salinity, oxygen and water age since AD1500	The PROBE-Baltic model have been used to examine oxygen dynamics including hypoxia dynamics during past 500 year. The study is described in Hansson and Gustafsson (2011). The description of reconstructed forcing fields is given in Hansson and Omstedt (2008). The modelling of river runoff is described in Hansson et al., (2010).	Modelling Baltic Sea daily temperature, ice, salinity, oxygen and water age since AD1500	3.1 Calculated daily temperature, ice, salinity, oxygen and water age Time series (from different sub-basins in the Baltic Sea) of surface and bottom temperatures (Ts, Tb), ice thickness (hi), ice concentration (Ai), surface and bottom salinity (Ss, Sb), surface and bottom oxygen concentration (Os, Ob) and water age at bottom (Age) have been calculated and are available as a number of files, see Table 1. The time resolution is one day. The surface properties refer to values at 1 m below the surface. The deep properties refer to values 1 m above model depth. These files are put into a compressed file under the name PB ocean time series I Oxygen 1500-1995.zip and have the size of 40 Mbite. Table 1. Calculated data available in file PB ocean time series I Oxygen 1500-1995.zip	Baltic Sea- Kattegat region	13 sub-basins	1500-1995	3 hours, daily and monthly			3.9.2009	On request from the contact.	Anders Omstedt Anders.Omstedt@gvc.gu.se	Through contact person	Baltic-C	4	Hansson and Gustafsson (2011). Salinity and hypoxia in the Baltic Sea since AD 1500, in press. Hansson, D., and A., Omstedt (2008). Modelling the Baltic Sea ocean climate on centennial time scales; Temperature and Sea Ice. <i>Climate Dynamics</i> 30(7-8), 763 - 778. DOI: 10.1007/s00382-007-0321-2. Hansson, D., Eriksson, C., Omstedt, A., and D., Chen (2010). Reconstruction of river runoff to the Baltic Sea. <i>Int. J. Climatol.</i> , DOI: 10.1002/joc.2097 Omstedt, A. and L., Axell (2003) Modeling the variations of salinity and temperature in the large Gulfs of the Baltic Sea. <i>Continental Shelf Research</i> , 23, 265-294	
Calculated Baltic Sea biogeochemical parameters for the period 1958-2010.	In the present material the model version PROBE-Baltic 3.0 1958-2010 has been used where the inorganic carbon dynamics follow Edman and Omstedt (2011) and the biological modelling follow Gustafsson (2011). A guide to the physical-biogeochemical modelling is given in Omstedt (2011).	Forcing data for Baltic Sea biogeochemical modelling	3.1 Calculated daily time series including temperatures, salinities, oxygen and nutrients Time series of surface and bottom temperatures (Ts, Tb), surface and bottom salinities (Ss, Sb), surface and bottom oxygen concentrations (ml/l), surface and bottom PO4 concentrations (µmol/kg), surface and bottom NO3 concentrations (µmol/kg), surface and bottom NHT (the sum of ammonia and ammonium concentrations, µmol/kg), see Table 1. The time resolution is one day. The surface properties refer to values at 1 m below the surface. The deep properties refer to values 1 m above model depth. These files are put into a map under the name PB calculated ocean time series I 1958-2010.zip and have the size of 8.05 Mbite as zip file. Table 1. Calculated data available in file PB calculated ocean time series I 1958-2010.zip	Baltic Sea- Kattegat region	13 sub-basins	1958-2010	3 hours, daily and monthly			15.1.2012	On request from the contact.	Anders Omstedt Anders.Omstedt@gvc.gu.se	Through contact person	Baltic-C	4	Edman, M. and A., Omstedt (2011) Modeling the dissolved CO2 system in the redox environment of the Baltic Sea. In manuscript. Gustafsson, E. (2011) Modelled long-term development of hypoxic area and nutrient pools in the Baltic Proper. <i>J. Mar. Syst.</i> , doi:10.1016/j.jmarsys.2011.11.012. Omstedt, A., (2011). Guide to process based modelling of lakes and coastal seas. Springer-Praxis books in Geophysical Sciences, DOI 10.1007/978-3-642-17728-6. Springer-Verlag Berlin Heidelberg.	

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Baltic-C Meta-data-set: Model forcing: Scenario RCM data to the CSIM model	Daily data including 2-m temperature and precipitation. These are taken from coupled atmosphere-ocean general circulation models (AOGCM) dynamically downscaled by the regional climate model (RCM) RCA3. The AOGCMs are ECHAM5/OPYC3, HadCM3 and CCSM3 with the greenhouse gas emission scenarios A1B, A2 and B1. The data are derived as input to the catchment nutrient model CSIM.	Climate scenarios, Baltic Sea catchment, CSIM, RCA3.	ASCII files of 2-meter temperature and precipitation.	Baltic Sea catchment area.	Spatial extension: A rectangular box including the Baltic Sea catchment area. Spatial resolution: 0.44° grid (50 x 50 km).	1961–2100.	Daily.			December, 2009.	On request from the contact.	Dr. Björn Carlsson Uppsala University, Department of Earth Sciences Villavägen 16, SE-752 36 Uppsala, Sweden Email: Bjorn.Carlsson@met.uu.se Dr. Anna Rutgersson Uppsala University, Department of Earth Sciences Villavägen 16, SE-752 36 Uppsala, Sweden Email: Anna.Rutgersson@met.uu.se	Due to data volume, data available from contact persons.	Baltic-C	5	Dynamically downscaled climate simulation with ECHAM5/OPYC3 (A1B, A2, B1), HadCM3 (A1B) and CCSM3 (A1B) using RCA3. Data derived from scenario simulations from the ENSEMBLES project (http://www.ensembles-eu.org/) and Rosby centre at SMHI (http://www.smhi.se/en/Research/Research-departments/climate-research-rossby-centre).	
Baltic-C Meta-data-set: Model forcing: Scenario RCM data to the LPJ-GUESS model	Daily data, including 2-m temperature, soil temperature, precipitation and downward shortwave radiation. These are taken from coupled atmosphere-ocean general circulation models (AOGCM) dynamically downscaled by the regional climate model (RCM) RCA3. The AOGCMs are ECHAM5/OPYC3, HadCM3 and CCSM3 with the greenhouse gas emission scenarios A1B, A2 and B1. The data are derived as input to the vegetation model LPJ-GUESS.	Climate scenarios, Baltic Sea catchment, LPJ-GUESS, RCA3	GRIB files of 2-meter temperature, soil temperature, precipitation and downward shortwave radiation.	Baltic Sea catchment area.	Spatial extension: A rectangular box including the Baltic Sea catchment area. Spatial resolution: 0.44° grid (50 x 50 km).	1961–2100.	Daily.			December, 2009.	On request from the contact.	Dr. Björn Carlsson Uppsala University, Department of Earth Sciences Villavägen 16, SE-752 36 Uppsala, Sweden Email: Bjorn.Carlsson@met.uu.se Dr. Anna Rutgersson Uppsala University, Department of Earth Sciences Villavägen 16, SE-752 36 Uppsala, Sweden Email: Anna.Rutgersson@met.uu.se	Due to data volume, data available from contact persons.	Baltic-C	5	Dynamically downscaled climate simulation with ECHAM5/OPYC3 (A1B, A2, B1), HadCM3 (A1B) and CCSM3 (A1B) using RCA3. Data derived from scenario simulations from the ENSEMBLES project (http://www.ensembles-eu.org/) and Rosby centre at SMHI (http://www.smhi.se/en/Research/Research-departments/climate-research-rossby-centre).	
Baltic-C Meta-data-set: Model forcing: Scenario RCM data to the PROBE-Baltic Model	3-hourly data including 2-m temperature, wind, humidity, total cloud cover, and precipitation. These are taken from coupled atmosphere-ocean general circulation models (AOGCM) dynamically downscaled by the regional climate model (RCM) RCA3. The AOGCMs are ECHAM5/OPYC3, HadCM3 and CCSM3 with the greenhouse gas emission scenarios A1B, A2 and B1. The data are derived as input to the ocean model PROBE-Baltic.	Climate scenarios, Baltic Sea, PROBE-Baltic, RCA3.	ASCII files of 2-m temperature and humidity, 10-m wind, total cloud cover and precipitation. Data are derived for the central point in each basin. Monthly atmospheric CO2 is represented by a station in southern Baltic Sea and the emission scenarios A1B, A2 and B1. Also the sea-level pressure is given at Oxøya and Debit.	Baltic Sea.	Spatial extension: Baltic Sea including Kattegat, Belt Seas and Øresund. Spatial resolution: 13 basins in the Baltic Sea.	1961–2100.	3-hourly.			December, 2009.	On request from the contact.	Dr. Björn Carlsson Uppsala University, Department of Earth Sciences Villavägen 16, SE-752 36 Uppsala, Sweden Email: Bjorn.Carlsson@met.uu.se Dr. Anna Rutgersson Uppsala University, Department of Earth Sciences Villavägen 16, SE-752 36 Uppsala, Sweden Email: Anna.Rutgersson@met.uu.se	Due to data volume, data available from contact persons.	Baltic-C	5	Dynamically downscaled climate simulation with ECHAM5/OPYC3 (A1B, A2, B1), HadCM3 (A1B) and CCSM3 (A1B) using RCA3. Data derived from scenario simulations from the ENSEMBLES project (http://www.ensembles-eu.org/) and Rosby centre at SMHI (http://www.smhi.se/en/Research/Research-departments/climate-research-rossby-centre).	
2Dtrajectories_RCO_OAAS	Simulation results of trajectories of passive drifters, locked in the surface layer of the Baltic Proper and the Gulf of Finland. Trajectories are calculated using the TRACMASS code (Döös 1995) from 3D velocity fields precomputed (i) using the Rossby Centre Ocean Model RCO (resolution 2 nautical miles, Meier et al. 2003, Meier 2007) driven by the output from RCA-ERA40 1961-2007 (Meier et al. 2011) (internal run number rco2-164) or (ii) using the OAAS model for the Gulf of Finland (resolution 1 nautical mile, Andrejev et al. 2010); Andrejev, O., Sokolov, A., Soomere, T., Värvi, R., Viikmäe, B. The use of high-resolution bathymetry for circulation modelling in the Gulf of Finland. Estonian Journal of Engineering 16 (3), 187–210; Döös, K. 1995. Inter-ocean exchange of water masses. J. Geophys. Res., 100(C7), 13499–13514.	Lagrangian trajectories, surface currents, numerical modelling, hindcast simulation, Baltic Sea, Gulf of Finland, oil propagation,	Time series describing the starting time of experiment, subsequent position and respective time instant of passive drifters during 10–60 days (depending on the particular domain) selected in each wet grid cell of the circulation models RCO (entire Baltic Sea) and OAAS (the Gulf of Finland). See (Soomere et al. 2010) for the routine of calculations. Soomere T., Viikmäe B., Delpeche N., Myrberg K. 2010. Towards identification of areas of reduced risk in the Gulf of Finland, the Baltic Sea; Proceedings of the Estonian Academy of Sciences, 59, 2, 156–165, doi: 10.3176/proc.2010.2.15	Trajectories based on the RCO model: entire Baltic Sea (excluding Kattegat). Trajectories based on the OAAS model: the Gulf of Finland	Trajectories based on the RCO model: effective resolution of the underlying information 2 nautical miles, interpolated values have considerably better resolution. Trajectories based on the OAAS model: effective resolution of the underlying information 1 nautical mile, interpolated values have considerably better resolution.	1987–1991; gradually being expanded towards 1961–2007	1-6 hours	TRACMASS: Döös, K. 1995. Inter-ocean exchange of water masses. J. Geophys. Res., 100(C7), 13499–13514. TRACMASS code and manual available at http://tracmass.org/ . RCO: Meier, H.E.M., R. Döscher, and T. Faxen, 2003. A multiprocessor coupled ice-ocean model for the Baltic Sea: Application to salt inflow. J. Geophys. Res., 108(C8), 3273, doi:10.1029/2000JC000521. Meier, H.E.M., 2007. Modeling the pathways and ages of inflowing salt- and freshwater in the Baltic Sea. Estuarine, Coastal and Shelf Science, Vol. 74/4, 717–734. OAAS: Andrejev, O., Sokolov, A., Soomere, T., Värvi, R., Viikmäe, B. The use of high-resolution bathymetry for circulation modelling in the Gulf of Finland. Estonian Journal of Engineering 16 (3), 187–210.	Both ocean models used the same forcing data: RCA-ERA40, 25 km spatial resolution. Meier, H.E.M., A. Höglund, R. Döscher, H. Andersson, U. Löptien and E. Kjellström, 2011. Quality assessment of atmospheric surface fields over the Baltic Sea of an ensemble of regional climate model simulations with respect to ocean dynamics. Oceanologia, 53 (1-TI), 193–227.	2009. Last update January 2012. Gradually updated towards covering the entire time span 1961-2007	Restricted to project consortium until 2012	Institute of Cybernetics at Tallinn University of Technology. Contact: Mr. Bert Viikmäe Institute of Cybernetics at Tallinn University of Technology Akadeemia tee 21 12618 Tallinn, Estonia Email: bert@ioc.ee Prof. Tarmo Soomere Institute of Cybernetics at Tallinn University of Technology Akadeemia tee 21 12618 Tallinn, Estonia Email: soomere@cs.ioc.ee	Server/memory bank at the Institute of Cybernetics at Tallinn University of Technology. Both server and data are password restricted. Contact Bert Viikmäe Internal: http://waveserv.kybi:7000/ External access: http://waveserv.ioc.ee:7000/ External, secure: https://waveserv.ioc.ee:7001/	BalticWay	3	Related circulation model data: Deliverable 2.1 (ID 206) High-resolution database of 3D current fields with long temporal coverage or the target areas of the BONUS+ Baltic Way project. Related forcing data are described by Meier, H.E.M., A. Höglund, R. Döscher, H. Andersson, U. Löptien and E. Kjellström, 2011. Quality assessment of atmospheric surface fields over the Baltic Sea of an ensemble of regional climate model simulations with respect to ocean dynamics. Oceanologia, 53(1-TI), 193–227, doi:10.5697/oc.53-1-TI.193 The basic features of TRACMASS described in Döös, K. 1995. Inter-ocean exchange of water masses. J. Geophys. Res., 100(C7), 13499–13514. TRACMASS code and manual available at http://tracmass.org/	• Deliverable contributing to developing methods for environmental risk/impact assessment and management for prevention and remediation. • Data-pool, report or publication providing new information on priorities and preferences of the general public on the environmental problems of the Baltic Sea that can be used in EAM decision-making. • Deliverable contributing to developing of operational forecasting and modeling systems for early warning of current and impending changes and risks.
Initial, boundary and forcing data for the circulation, oil spill and risk models	(i) Initial, boundary and forcing data for high-resolution simulations in the Gulf of Finland; (ii) Gridded geostrophic winds for 1970–2007; (iii) Numerically simulated wave properties for the entire Baltic Sea (1970–2007); (iv) Bathymetric data in high resolution for the Gulf of Finland; (v) Frequently used sailing lines in the Gulf of Finland.	Numerical modelling, hindcast simulation, forcing data, Baltic Sea, currents, waves, bathymetry data, bathymetry, Gulf of Finland	(i) Variables describing external forcing for circulation simulations such as (2D) wind fields, wind stress air pressure and temperature, precipitation, sea level at selected cross-sections, river discharge; (ii) variables used for wave simulations: 2D geostrophic wind fields; (iii) variables used as boundary information for highresolution nested models (water level, temperature, salinity, density at selected cross-sections at the boundaries of nested grid areas); (iv) output of wave simulations, to be used as input for circulation, oil spill and risk models (wave height, period, propagation direction, incl. procedures for generation of radiation stress from these); (v) bathymetric data: gridded with a resolution of 0.25° 0.25 nautical miles.	(i) Baltic Sea including Kattegat for circulation modelling; (ii) Baltic Sea to the east of the Danish Straits for wave information; (iii) Gulf of Finland for high-resolution circulation modelling.	2 nautical miles for circulation data 3 nautical miles for wave model output 1° 1 degree for geostrophic wind data 0.25° 0.25 nautical miles for bathymetric data	1961-2007	variable 6-hourly for circulation data 3-hourly or 6-hourly for geostrophic wind data 1-hourly for simulated wave properties	RCO model (circulation model output): Meier, H.E.M., 2007. Modeling the pathways and ages of inflowing salt- and freshwater in the Baltic Sea. Estuarine, Coastal and Shelf Science, Vol. 74/4, 717–734. OAAS model (high-resolution simulations for the Gulf of Finland): Andrejev, O. and Sokolov, A. Numerical modelling of the water dynamics and passive pollutant transport in the Neva inlet. Meteorol. Hydrol., 1989, 12, 75–85 (in Russian). Andrejev, O. and Sokolov, A. 3D baroclinic hydrodynamic model and its applications to Skagerrak circulation modelling. In: Proceedings of 17th Conference of the Baltic Oceanographers. Norrköping, Sweden, 1990, 38–46.	Different forcing data: (i) for circulation modelling (both RCO and OAAS), RCAERA40, 25km; see (Meier et al. 2011) above (ii) for wave modelling: geostrophic winds, Swedish Meteorological and Hydrological Institute; turned 15 degrees counterclockwise and multiplied by 0.6	2009-2011. Last major update: December 2011; Updated continuously as the new data arrive; Addition of high-resolution simulation data for the Gulf of Finland (OAAS model, 1 and 0.5 nm resolution) planned in Feb-March 2012.	Restricted to project consortium until 2012.	Institute of Cybernetics at Tallinn University of Technology Contact: (i) Data sets: Mr. Bert Viikmäe Institute of Cybernetics at Tallinn University of Technology Akadeemia tee 21 12618 Tallinn, Estonia Email: bert@ioc.ee Prof. Tarmo Soomere Institute of Cybernetics at Tallinn University of Technology Akadeemia tee 21 12618 Tallinn, Estonia Email: soomere@cs.ioc.ee (ii) Analyses: Prof. Emil Stanev Institute for Coastal Research Email: emil.stanev@hgz.de	Server/memory bank at the Institute of Cybernetics at Tallinn University of Technology. Both server and data are password restricted. Contact Bert Viikmäe Internal: http://waveserv.kybi:7000/ Internal, secure: https://waveserv.kybi:7001/ External access: http://waveserv.ioc.ee:7000/ External, secure: https://waveserv.ioc.ee:7001/	BalticWay	1	Generic information see in the analysis http://www.icbm.de/~oceanogr/download/D1-1.pdf Related forcing data are described in (Meier et al. 2011), see above. The output of modelled RCO data for the entire Baltic Sea: BONUS BalticWay deliverable 2.1. The database of Lagrangian trajectories of water particles created using TRACMASS code: BONUS BalticWay deliverable 3.1.	Number of countries: 5 Relevance to BONUS progress indicators: • Deliverable contributing to developing methods for environmental risk/impact assessment and management for prevention and remediation. • Data-pool, report or publication providing new information on priorities and preferences of the general public on the environmental problems of the Baltic Sea that can be used in EAM decision-making. • Deliverable contributing to developing of operational forecasting and modeling systems for early warning of current and impending changes and risks.
First climate transient simulation to force hydrological models and BS models			all usual meteorological parameters: temperature, precipitation, humidity, wind, radiation, etc	Baltic Sea drainage area	50 km	1957 - 2007	6 h	simulation with the regional climate model RCO driven at its boundaries by global meteorological reanalysis for the period 1957 until 2007 and driven by simulations with a global climate models ECHAM5/OM and HadCM3 assuming SRES emissions scenarios for the period until 2100.	driven at its boundaries by global meteorological reanalysis for the period 1957 until 2007 and driven by simulations with a global climate models ECHAM5/OM and HadCM3 assuming SRES emissions scenarios for the period until 2100.		On request from the contact, restricted to project consortium in 2009-2012	Markus Meier, SMHI, markus.meier@smhi.se	Swedish Meteorological and Hydrological Institute	ECOSUPPORT	1		

1) Title of dataset	2) General description of the dataset	3) Keywords	4) Parametres in the dataset	5) Area covered	6) Spatial resolution	7) Time span covered	8) Temporal resolution	9) Model applied with some information on calibration & validation	10) Forcing applied	11) Created	12) Availability	13) Originator/contact	14) Location of dataset	15) BONUS Project that produced the dataset	16) WP	References to sources of other datasets	Relevance to BONUS progress indicators:
Atmospheric forcing for historical climate simulation: reconstruction by statistical methods using long time series of station sea-level-pressure and temperature data, together with the output of the RCA model			sea-level air pressure, air temperature, total cloudiness, relative humidity, precipitation	Northern Europe lat: 48.5 -70.5, lon: -5.0 -36.75	0.25 degree	1850 - 2007/2009	24 h	statistical model; model tests with various calibration/validations period within 1957-2006	RCAO model data 1961-2007 (50 km) driven with ERA40 lateral boundary data (run 36) and observations for sea level pressure and temperature		On request from the contact, restricted to project consortium in 2009-2012	Eduardo Zorita, GKSS Research Centre, eduardo.zorita@gkss.de	GKSS Research Centre	ECOSUPPORT	1		
Atmospheric forcing for historical climate simulation: RCAO model data forced with lateral boundary data from ERA40			inter alia sea level pressure, 2m air temperature, 2m specific humidity, 10m wind speed, total cloudiness, precipitation	RCAO model domain covers Europe and parts of the North Atlantic	50 km	1961 - 2007	6 h	RCAO with lateral boundary data from ERA40, run36	ERA40		On request from the contact, restricted to project consortium in 2009-2012	Eduardo Zorita, GKSS Research Centre, eduardo.zorita@gkss.de	GKSS Research Centre	ECOSUPPORT	1		
Baltsem Long-term hindcast			S, T, O ₂ -H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det. P, Det Si, N ₂ -fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P and Si;	Baltic Sea including Kattegat	13 basins, about 1 m vertical resolution	1850-2006	daily outputs	BALTSEM, Gustafsson (2003), Savchuk (2005) etc.	HiResAFF, + various reconstructions of other forcings	2010	On request from the contact.	BNI	BNI	ECOSUPPORT	2		
RCAO-SCOBI Scenarios			RCAO-SCOBI, Meier et al. (2003), Eilola et al. (2009)	Baltic Sea including Kattegat	2 nautical miles, 83 vertical levels	1961-2100	2-daily outputs	RCAO-SCOBI, Meier et al. (2003), Eilola et al. (2009)	RCAO-ECHAM5-A1B-1, RCAO-ECHAM5-A2, RCAO-ECHAM5-A1B-3, RCAO-HadCM3-A1B, 4 different nutrient land loads and nutrient atmospheric loads scenarios; statistically downscaled sea levels in Kattegat and runoff	2010	On request from the contact.	SMHI	SMHI	ECOSUPPORT	2		
Baltsem Scenarios			S, T, O ₂ -H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det. P, Det Si, N ₂ -fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P and Si;	Baltic Sea including Kattegat	13 basins, about 1 m vertical resolution	1961-2100	daily outputs	BALTSEM, Gustafsson (2003), Savchuk (2005) etc.	RCAO-ECHAM5-A1B-1, RCAO-ECHAM5-A2, RCAO-ECHAM5-A1B-3, RCAO-HadCM3-A1B, 4 different nutrient land loads and nutrient atmospheric loads scenarios; statistically downscaled sea levels in Kattegat and runoff	2010	On request from the contact.	BNI	BNI	ECOSUPPORT	2		
ERGOM scenarios			S, T, NH ₄ , NO ₃ , PO ₄ , 3 groups of phytoplankton (small and large cells, N ₂ -fixators), bulk zooplankton, detritus, O ₂ , FePO ₄ , sediment detritus	Baltic Sea	3 nm, 77 vertical layers	1961 - 2100	Whole Baltic - Monthly averaged stations - 6h averaged	ERGOM, Neumann et al. (2002) etc.		2010	On request from the contact.	IOW	IOW;HLRN	ECOSUPPORT	2		
	Meteorological forcing data have been reconstructed by statistical methods using long time series of station sea-level-pressure and temperature data, together with the output of the RCA model in 1961-2007. In addition RCAO model data forced with lateral boundary data from ERA40 for 1961-2007 are available.		sea-level air pressure, air temperature, total cloudiness, relative humidity, precipitation	Northern Europe lat: 48.5 -70.5, lon: -5.0 -36.75	0.25 degree	1850-2007/2009	daily	applicable only for model-generated datasets): [statistical model; model testes with various calibration/validations period within 1957-2006	applicable only for model-generated datasets): [RCAO model data 1961-2007 (50 km) driven with ERA40 lateral boundary data (run 36) and observations for sea level pressure and temperature		On request from the contact.			ECOSUPPORT	1		
			[inter alia sea level pressure, 2m air temperature, 2m specific humidity, 10m wind speed, total cloudiness, precipitation	RCAO model domain covers Europe and parts of the North Atlantic	50 km	1961-2007	6 hourly	applicable only for model-generated datasets): [RCAO with lateral boundary data from ERA40, run36	applicable only for model-generated datasets): [ERA40		On request from the contact.			ECOSUPPORT	1		
	The data are the results of simulations with the model RCAO, with spatial resolution 50 km. A finer resolution version (25 km) will be delivered as well.		inter alia sea level pressure, 2m air temperature, 2m specific humidity, 10m wind speed, total cloudiness, precipitation	RCAO model domain covers Europe and parts of the North Atlantic	50 km	1961-2099	6 hourly	applicable only for model-generated datasets): [RCAO with lateral boundary data from GCMs	applicable only for model-generated datasets): [HadCM3/A1B, ECHAM5/A1B, ECHAM5/A2		On request from the contact.			ECOSUPPORT	1		
River-borne nutrient data is the output of a hindcast model simulation			[River Runoff[m ³ /s], Total Phosphorus Conc. [mg/m ³], Particulate Phosphorus Conc. [mg/m ³], Soluble Phosphorus Conc. [mg/m ³], Total Nitrogen Conc. [mg/m ³], Inorganic Nitrogen Conc. [mg/m ³], Organic Nitrogen [mg/m ³]	Baltic Sea drainage Basin	Median subbasin size 400 km ²	1 Jan- 1961 to 31 dec 2008	Monthly values calculated from daily values	The semi-distributed hydrological and hydro-chemical HYPE-model from The Swedish Meteorological and Hydrological Institute was applied to the Baltic Sea Drainage Basin. The calibration of the hydrological model was made by calibrating the soil type and land-use specific parameters of the model to observed runoff. This was made only for catchments where the land is dominated by one type of land-use and soiltype. The model was validated by applying the land-use and soil-type dependent parameters to the whole Baltic catchment and evaluating independent gauged catchments where the land consisted of a combination of land-uses and soiltypes. The hydrochemical model was calibrated to observed concentrations of Total Phosphorus and Total Nitrogen. In catchments outlets.	Precipitation and temperature from ERA-MESAN (from 1980) and ERA40 (prior to 1980), patched to match the model domain is space and time.		On request from the contact.			ECOSUPPORT	1		
River run-off data stem from the University of Gothenburg, A. Omstedt and Daniel Hansson			volume flow	Baltic Sea catchment area	3 regions, i.e. northern and southern Baltic Sea region, Gulf of Finland	1500-1995	seasonal	applicable only for model-generated datasets): [statistical model	applicable only for model-generated datasets): [temperature and atmospheric circulation indices calculated from data by Luterbacher et al. 2002, 2004		On request from the contact.			ECOSUPPORT	1		
ERA40-RCA downscaling			u, v, T, Rf, nc, Pa, Prec	Northern Europe	25 & 50 km	1960-2009	3h	RCAO	ERA40	2009	On request from the contact.	SMHI	SMHI	ECOSUPPORT	2		
Analysis of simulated changes (maps, transports, integrated budgets) of biogeochemical variables and ecological quality indicators in future climate and with altered nutrient loads	A complete set of analyses of the 54 transient model simulations for the period 1961-2099	Climate change, management scenarios, eutrophication indicators, biogeochemical variables	S, T, O ₂ , Phytoplankton, Nitrate, Ammonium, Phosphate, Primary production	Baltic Sea	n/a	n/a	n/a	Baltsem, RCAO-SCOBI and ERGOM	RCAO-ECHAM5 A1B realization 1, RCAO-ECHAM5 A1B realization 3, RCAO-ECHAM5 A2 realization 1, RCAO-HadCM3 A1B Ref, in addition 4 nutrient load scenarios.	20111212	Public	Markus Meier, SMHI	available from Ecosupport home page: http://www.baltsea-research.eu/ecosupport	ECOSUPPORT	2		
Estimate of load reductions necessary to meet BSAP environmental targets in future climate	Set of load reductions obtained from simulations with Baltsem under assumption of the A1B carbon dioxide emission scenario	Nutrient loads, Baltsem, BSAP	Nitrogen and phosphorus loads	Baltic Sea	n/a	n/a	n/a	Baltsem	RCAO-ECHAM5 A1B realization 3	20111212	restricted	Bo Gustafsson, BNI	available from Bo Gustafsson, BNI, Stockholm University	ECOSUPPORT	2		

1) Title of dataset	2) General description of the dataset	3) Keywords	4) Parametres in the dataset	5) Area covered	6) Spatial resolution	7) Time span covered	8) Temporal resolution	9) Model applied with some information on calibration & validation	10) Forcing applied	11) Created	12) Availability	13) Originator/contact	14) Location of dataset	15) BONUS Project that produced the dataset	16) WP	References to sources of other datasets	Relevance to BONUS progress indicators:
EWE-base run (Present climate)	Simulations with Ecopath with Ecosim model, driven by observed hydrodynamic data and fishing mortality for the period 1974-2006.	food-web modelling	Variables describing multi-trophic level food web components (from phytoplankton to fish)	Central Baltic Sea	basin scale	1974-2006	Annual	The Ecopath with Ecosim model used data from the BNI BED database and the ICES-HELCOM databases for calibration and validation of the model. The quality will be described in forthcoming publications. Not assessed yet.	Observed climate data and fishing mortality.	2010/2011	Restricted to project consortium until 2012.	BNI. Contact: Dr. Thorsten Blenckner, Baltic Nest Institute, Stockholm Resilience Centre, Kräftriket 10, Stockholm University, SE-106 91 Stockholm, Sweden. Email: Thorsten.blenckner@stockholmresilience.su.se	Computer disks belonging to BNI	ECOSUPPORT	3	The forcing data are described by ICES/HELCOM Working Group on Integrated Assessments of the Baltic Sea, http://www.ices.dk/workinggroups/VieWorkingGroup.aspx?ID=199 Baltic Environmental Database, BED hosted at	
sprat population reconstruction	Reconstructed annual spawner biomass and recruitment data for sprat in the Baltic Sea	Sprat, spawner biomass, recruitment, Baltic Sea	Sprat spawner biomass and recruitment	ICES Subdivisions 22-32, 22-25, 26 & 28, 27 & 29-32.	ICES Subdivisions	Annual data from 1960-2010; additional data for several years back 1931.	Annual.	Extended virtual population analysis (XSA); other statistical analyses based on various field data	n/a	2011	Data will be available to the public following acceptance of a manuscript describing the data. A manuscript has been submitted to ICES J. Marine Science in January 2012.	DTU Aqua. Contact: Dr. Margit Eero, National Institute for Aquatic Resources (DTU Aqua), Technical University of Denmark Email: mee@aqu.dtu.dk	DTU Aqua	ECOSUPPORT	3	Descriptions of the development of the data are in: Eero, M. Reconstructing the dynamics of sprat (<i>Sprattus sprattus</i>) in the Baltic Sea in the 20 th century	
cod population and fishery yield simulations for 21st century	Simulated cod spawner biomass and yield for scenarios involving different combinations of climate change, seal predation and cod fishery for the 21 st century. The data were produced by a stochastic single – species population dynamics model using a salinity-dependent spawner-recruitment relationship and seal predation – dependent cod survival rate. The cod population model was forced using forecasted salinity data from the BACC climate change assessment.	cod, spawner biomass, fishery yield, seals, predation, Baltic Sea	Cod spawner biomass, recruitment and fishery yield, and estimated seal abundance for 21 st century.	ICES Subdivisions 25-32	ICES Subdivisions	Annual data from 2010-2089.	Annual	Stochastic single-species age-structured population model with environment-dependent stock-recruitment model.	as used in BACCassessment from 2008.	2010	Public	Data will be available to the public following acceptance of a manuscript describing the data. A manuscript has been submitted to the ECOSUPPORT special issue of Ambio in December 2011.	DTU Aqua	ECOSUPPORT	3	Descriptions of the development of the data are in: MacKenzie B. R., M. Eero, and H. Ojaveer. 2011. Could seals prevent cod recovery in the Baltic Sea? Public Library of Science One 6:e18998-1-9.	
sprat population and fishery yield simulations for 21st century	Simulated sprat spawner biomass and yield for climate change scenarios for 21 st century. The data were produced by a stochastic single – species population dynamics model using a temperature-dependent spawner-recruitment relationship. The sprat population model was forced using forecasted temperature data from three oceanographic-biogeochemical models (BALTSEM, ERGOM, RCO-SCOBII) forced with ECHAM5_A1B3 CO ₂ emission scenario, and assuming fishery exploitation at currently defined maximum sustainable yield levels (i. e., F _{MSY}). Additional sprat biomass projections were produced using the BALMAR time series foodweb model (Lindgren et al. 2010 Proc. Roy. Soc. B) and a stochastic multi-species predator-prey interaction model (involving cod, sprat and herring; Koester et al. 2009 J. NWAFFS).	Sprat, spawner biomass, fishery yield, Baltic Sea	Sprat spawner biomass, recruitment and yield.	ICES Subdivisions 22-32	ICES Subdivisions	Annual data from 2010-2100.	Annual	Stochastic single-species age-structured population model with environment-dependent stock-recruitment model.	- A1B CO ₂ emission scenario climate data from ECHMA5 and oceanographic data from three biogeochemical models (BALTSEM, ERGOM, RCO-SCOBII).	2011	A1B CO ₂ emission scenario climate data from ECHMA5 and oceanographic data from three biogeochemical models (BALTSEM, ERGOM, RCO-SCOBII).	DTU Aqua. Contact: Dr. Brian MacKenzie National Institute for Aquatic Resources (DTU Aqua) Technical University of Denmark Email: brm@aqu.dtu.dk	DTU Aqua	ECOSUPPORT	3	Descriptions of the development of the data are in: MacKenzie, B. R., Meier, H.E. M., Lindgren, M., Blenckner, T., Neuenfeldt, S., Tomczak, M., Niironen, S. Application of coupled atmosphere-ocean models for investigations of climate change impacts of sprat population dynamics in the Baltic Sea – methodological and application considerations. Submitted to ECOSUPPORT special issue of Ambio in December 2011.	
EWE-scenario run (Future climate)	Simulations with Ecopath with Ecosim model, driven by simulated hydrodynamic data from 3 different biogeochemical models (Scobi, Ergom and Baltsem) and fishing mortality for the period 1974-2100.	food-web modelling	Variables describing multi-trophic level food web components (from phytoplankton to fish)	Central Baltic Sea	basin scale	1974-2100	Annual	The Ecopath with Ecosim food-web model used simulated data from three biogeochemical models (Scobi, Ergom, Baltsem). The food-web model was calibrated based on the ERA-40 simulation results of these three biogeochemical models. After the calibration the food-web model run the different scenarios which were simulated by the biogeochemical models, i.e. there nutrient load scenarios (BAU, REF, BSAP) under the condition of different climate forcing (A1B_1, A1B_3, A2) with two different fishery assumptions (business as usual fishing and cod recovery plan). The results of this exercise will be used in forthcoming publications.	Simulated results from the three biogeochemical models (Scobi, Ergom, Baltsem) and two different fishing mortality assumptions.	mid-to-end 2011	Restricted to project consortium until 2012.	BNI. Contact: Dr. Thorsten Blenckner, Baltic Nest Institute, Stockholm Resilience Centre, Kräftriket 10, Stockholm University, SE-106 91 Stockholm, Sweden. Email: Thorsten.blenckner@stockholmresilience.su.se	Computer disks belonging to BNI	ECOSUPPORT	3	The forcing data are delivered and produced by the WP 1 and 2	
Model simulations of present and future climates in the Gulf of Finland	Set of salinity, temperature, nitrogen, phosphorus, chlorophyll and nitrogen fixation rate fields obtained from simulations with coupled GETM and ERGOM.	Temperature, salinity, nutrients, chlorophyll, GETM, ERGOM	Temperature, salinity, nitrogen, phosphorus, oxygen and chlorophyll, nitrogen fixation	Gulf of Finland	2 nm	1997-2006 and 2070-2099 years	24 h	GETM, ERGOM	Present climate is forced with ERA40-RCAO and total runoff and nutrient load from HYPE. Forcing for future projection simulation obtained from RCAO- HadCM3 A1B; total runoff and nutrient load from HYPE driven by RCAO- HadCM3 A1B assuming scenario BAU.	20110630 (Last update 20111220)	restricted	Urmars Raudsepp, MSI		ECOSUPPORT	4		
Uncertainty estimates of the Gulf of Finland output fields	Vertical profiles of temperature, salinity, nitrogen, phosphorus and oxygen averaged over 10 year time slices obtained from simulations with coupled GETM and ERGOM under assumption of the A1B carbon dioxide emission scenario and nutrient load scenario BAU.	Temperature, salinity and stratification, GETM, ERGOM	Temperature, salinity, nitrogen, phosphorus, oxygen, t-statistical estimates	Gulf of Finland	n/a	n/a	n/a	GETM, ERGOM	Present climate is forced with ERA40-RCAO and total runoff and nutrient load from HYPE. Forcing for future projection simulation obtained from RCAO- HadCM3 A1B; total runoff and nutrient load from HYPE driven by RCAO- HadCM3 A1B assuming scenario BAU	20110930 (Last update 20111220)	restricted	Urmars Raudsepp, MSI	available from Urmars Raudsepp, MSI, Tallinn University of Technology	ECOSUPPORT	4		
Distributions maps of water quality indicators in the coastal zone and open Gulf of Finland	Set of future projection distributions of surface layer annual mean DIN, DIP, DIN/DIP ratio, chlorophyll and nitrogen fixation rate; near-bottom oxygen, DIN and DIP in the Gulf of Finland.	DIN, DIP, chlorophyll, nitrogen fixation rate, GETM, ERGOM, BAU	DIN, DIP, chlorophyll, nitrogen fixation rate, oxygen	Gulf of Finland	2 nm	1997-2006 and 2070-2099 years	10 years	ERGOM	Forcing for future projection simulation obtained from RCAO- HadCM3 A1B; total runoff and nutrient load from HYPE driven by RCAO- HadCM3 A1B assuming scenario BAU	20110930 (Last update 20111220)	restricted	Urmars Raudsepp, MSI	available from Urmars Raudsepp, MSI, Tallinn University of Technology	ECOSUPPORT	4		
Model calibration dataset for the Vistula Lagoon.	Model calibration dataset on temperature, salinity, oxygen, pH and Eh for the 8 points in the Russian part of the Vistula Lagoon and River Pregel discharge for 1994-2008 years.	Dataset, model calibration, hydrography and water quality indicators	Temperature, salinity, oxygen, Secchi Depth in the Vistula Lagoon, River Pregel discharge	The Vistula Lagoon of the Baltic Sea, Russian part (the northern part of the lagoon)	Distance between measuring points is of 10-15 km	1994-2008	Once per 1-2 months	n/a	n/a	20111201 (Last update 20120115)	Restricted, for project use only	Boris Chubarenko, Atlantic Branch of P.P.Shirshov Institute of Russian Academy of Sciences, Kaliningrad	Available from Boris Chubarenko, Atlantic Branch of P.P.Shirshov Institute of Russian Academy of Sciences, Kaliningrad	ECOSUPPORT	4		

1) Title of dataset	2) General description of the dataset	3) Keywords	4) Parametres in the dataset	5) Area covered	6) Spatial resolution	7) Time span covered	8) Temporal resolution	9) Model applied with some information on calibration & validation	10) Forcing applied	11) Created	12) Availability	13) Originator/contact	14) Location of dataset	15) BONUS Project that produced the dataset	16) WP	References to sources of other datasets	Relevance to BONUS progress indicators:
Model derived hydrographic characteristics for the Vistula Lagoon, 1940-2040	Model simulation results for hydrology of the Vistula Lagoon (temperature, salinity), 1940-2040, A1B carbon dioxide emission scenario	Dataset, model derived data, hydrography indicators	Temperature, salinity	The Vistula Lagoon of the Baltic Sea, Russian part (the northern part of the lagoon)	Grid size – 1 km	1940-2040	1 / day	MIKE21, calibrated and validated for the period of 1993-1996	RCAO-ECHAM5 A1B realization	20111201 (Last update 20120115)	Restricted, for project use only	Boris Chubarenko, Atlantic Branch of P.P.Shirshov Institute of Russian Academy of Sciences, Kaliningrad	Available from Boris Chubarenko, Atlantic Branch of P.P.Shirshov Institute of Russian Academy of Sciences, Kaliningrad	ECOSUPPORT	4		
EWE-base run (Present climate)	Simulations with Ecopath with Ecosim model, driven by observed hydrodynamic data and fishing mortality for the period 1974-2006.	food-web modelling	Variables describing multi-trophic level food web components (from phytoplankton to fish)	Central Baltic Sea	basin scale	1974-2006	Annual	The Ecopath with Ecosim model used data from the BNI BED database and the ICESHELCOM databases for calibration and validation of the model. The quality will be described in forthcoming publications. Not assessed yet.	Observed climate data and fishing mortality	2010/2011	Restricted to project consortium until 2012.	BNI: Dr. Thorsten Blenckner. Baltic Nest Institute, Stockholm Resilience Centre. Kräftriket 10, Stockholm University, SE-106 91 Stockholm, Sweden. Email: Thorsten.blenckner@stockholmresilience.su.se	Computer disks belonging to BNI	ECOSUPPORT	3	The forcing data are described by ICES/HELLCOM Working Group on Integrated Assessments of the Baltic Sea, http://www.ices.dk/workinggroups/VieWorkingGroup.aspx?ID=199 . Baltic Environmental Database, BED hosted at	
BALTSEM			S, T, O ₂ -H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det. P, Det Si, N ₂ -fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P and Si;	Baltic Sea	13 sub-basins, ~1 m vertical	1961-2006	Daily outputs	BALTSEM, Gustafsson (2003), Savchuk (2005) etc.	RCAO-ERA40; nutrient land loads and nutrient atmospheric loads; observed sea levels in Kattegat; observed stratification and nutrient	2009	On request from the contact.	BNI	BNI	ECOSUPPORT	2		
ERGOM			S, T, NH ₄ , NO ₃ , PO ₄ , 3 groups of phytoplankton (small and large cells, N ₂ -fixators), bulk zooplankton, detritus, O ₂ , FePO ₄ , sediment detritus	Baltic Sea	3 nm, 77 vertical layers	1961 - 2007	Whole Baltic - Monthly averaged stations - 6h averaged	ERGOM, Neumann et al. (2002) etc.	RCA-ERA40; river loads; nutrient atmospheric loads; sea levels in Skagerrak; climatology of all parameters in western Skagerrak	2009	On request from the contact.	IOW	IOW;HLRN	ECOSUPPORT	2		
Historical climate simulations of the Baltic Sea ecosystem for the Little Ice Age	A reconstructed dataset for biogeochemical and hydrographic data of the Baltic Sea during Modern Warm Period (MoWP), Little Ice Age (LIA), and Medieval Climate Anomaly (MCA)	Baltic Sea, biogeochemistry, hydrography, Little Ice Age, Medieval Climate Anomaly, delta change	monthly 3D data: temperature, salinity, currents, sea-ice, sea level elevation, oxygen, nitrate, ammonium, phosphate, phytoplankton, cyanobacteria, bulk-zooplankton, detritus, sediment nitrogen and phosphorus	8.4E-30.4E, 54N-66N	about 5 km in horizontal direction, and 77 depth levels	MoWP: 1958-2004, LIA: 1658-1704, and MCA: 1200-1246 (biogeochemical model was forced with reconstructed atmospheric data from deliverable D2.1)	monthly	Baltic Sea model ERGOM was calibrated and validated with ERA40 forcing and contemporary observations. LIA simulations were compared to proxy data from sedimentary records	MoWP: ERA40, LIA & MCA: Reconstructed atmospheric forcing from ERA40 data modified by delta-change approach	During 2011	Available on request, restricted to project consortium 2009-2012	Dr. Thomas Neumann, Department of Physical Oceanography and Instrumentation, Leibniz Institute for Baltic Sea Research Warnemünde, Seestraße 15, 18119 Rostock, Germany, (thomas.neumann@io-warnemuende.de) Christian Porsche, Department of Physical Oceanography and Instrumentation, Leibniz Institute for Baltic Sea Research Warnemünde, Seestraße 15, 18119 Rostock, Germany, (christian.porsche@io-warnemuende.de)	Baltic Sea Research Institute Warnemünde	INFLOW	WP2		
Atmospheric forcing for historical climate simulations: Regional downscaling of palaeoclimate simulation with ECHO-G	Downscaling of global climate data with the RCA3 model	Atmospheric forcing, palaeoclimate simulations, regional downscaling, ECHO-G	2m temperature, 10m wind speed, cloudiness, 2m humidity, sea level air pressure, precipitation	RCA3 model domain covers Europe and parts of the North Atlantic	50km	950-1849	6h	Regional climate model RCA3 with boundary data from ECHO-G	ECHO-G	2011	On request from the contact, restricted to project consortium 2009-2012	Markus Meier, SMHI, markus.meier@smhi.se	Swedish Meteorological and Hydrological Institute	INFLOW	WP2		
Atmospheric forcing for historical climate simulations: Reconstruction of Little Ice Age climate by a delta change approach	A dataset for contemporary climate generated by the combination RCA3/ERA40 was modified for LIA climate conditions	Atmospheric forcing, palaeoclimate simulations, Delta change approach, RCA3/ERA40, Little Ice Age climate	2m temperature, 10m wind speed, cloudiness, 2m humidity, sea level air pressure, precipitation	8E-33E, 52N-67N	50km	1658-1704 (note that the data are derived from modern climate)	6h	Based on data set from RCA3 with ERA40 boundary conditions	ERA40	2011	On request from the contact, restricted to project consortium 2009-2012	Thomas Neumann, Baltic Sea Research Institute Warnemünde, thomas.neumann@io-warnemuende.de	Baltic Sea Research Institute Warnemünde	INFLOW	WP2		
Perch - current state -Maxent	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Maxent, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - decrease 10% -Maxent	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Maxent, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - increase 11% -Maxent	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Maxent, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - increase 20% -Maxent	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Maxent, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - increase 30% -Maxent	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Maxent, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - increase 40% -Maxent	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Maxent, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - increase 48% -Maxent	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Maxent, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - current state -rF	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			randomForest (software R), validation using Out-of-bag error rate			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - current state -GAM	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using GAM methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Generalized Additive Models, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		
Perch - decrease 10% -GAM	Map of perch (<i>Perca fluviatilis</i>) recruitment areas in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using GAM methodology	perch, <i>Perca fluviatilis</i> , Baltic Sea, archipelago	Probability of occurrence (%)	40 000 km ²	25m			Generalized Additive Models, 10 fold crossvalidation			On request from the contact.	Göran Sundblad (goran.sundblad@aquabiota.se) & Ulf Bergström (ulf.bergstrom@slu.se)	Göran Sundblad's computer & Ulf Bergström's computer	PREHAB	2 & 3		

1) Title of dataset	2) General description of the dataset	3) Keywords	4) Parametres in the dataset	5) Area covered	6) Spatial resolution	7) Time span covered	8) Temporal resolution	9) Model applied with some information on calibration & validation	10) Forcing applied	11) Created	12) Availability	13) Originator/contact	14) Location of dataset	15) BONUS Project that produced the dataset	16) WP	References to sources of other datasets	Relevance to BONUS progress indicators:
Zostera - increase 30% -Maxent	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	65 000 km ²	25m			Maxent, automatic features, regularisation =2, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 40% -Maxent	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	66 000 km ²	25m			Maxent, automatic features, regularisation =2, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 48% -Maxent	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Maxent methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	67 000 km ²	25m			Maxent, automatic features, regularisation =2, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - current state -rF	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	68 000 km ²	25m			Random Forest, using the R package randomForest, 500 trees, validation using Out-of-bag error rate		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - decrease 10% -rF	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	69 000 km ²	25m			Random Forest, using the R package randomForest, 500 trees, validation using Out-of-bag error rate		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 11% -rF	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	70 000 km ²	25m			Random Forest, using the R package randomForest, 500 trees, validation using Out-of-bag error rate		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 20% -rF	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	71 000 km ²	25m			Random Forest, using the R package randomForest, 500 trees, validation using Out-of-bag error rate		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 30% -rF	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	72 000 km ²	25m			Random Forest, using the R package randomForest, 500 trees, validation using Out-of-bag error rate		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 40% -rF	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	73 000 km ²	25m			Random Forest, using the R package randomForest, 500 trees, validation using Out-of-bag error rate		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 48% -rF	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using randomForest methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	74 000 km ²	25m			Random Forest, using the R package randomForest, 500 trees, validation using Out-of-bag error rate		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - current state -GAM	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Gam methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	75 000 km ²	25m			Generalized Additive Models, shrinking splines, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - decrease 10% -GAM	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Gam methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	76 000 km ²	25m			Generalized Additive Models, shrinking splines, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 11% -GAM	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Gam methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	77 000 km ²	25m			Generalized Additive Models, shrinking splines, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 20% -GAM	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Gam methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	78 000 km ²	25m			Generalized Additive Models, shrinking splines, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 30% -GAM	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Gam methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	79 000 km ²	25m			Generalized Additive Models, shrinking splines, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 40% -GAM	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Gam methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	80 000 km ²	25m			Generalized Additive Models, shrinking splines, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Zostera - increase 48% -GAM	Map of eelgrass (<i>Zostera marina</i>) distribution in the archipelago between Stockholm (Sweden) and Turku (Finland). Based on predictive distribution models using Gam methodology	eelgrass, Zostera marina, Baltic Sea, archipelago	Probability of occurrence (%)	81 000 km ²	25m			Generalized Additive Models, shrinking splines, 10 fold crossvalidation		August 2011	On request from A. Downie / SYKE	Anna Downie / SYKE (anna-leena.downie@ymparisto.fi)	SYKE	PREHAB	2 & 3		
Surface retention estimates	Retention of nutrients in surface water bodies	Baltic Sea drainage basin, nutrient retention,	Total-N and Total-P retention estimates	Baltic Sea drainage area	117 drainage basins	1994-2006	Long-term annual average (1994-2006)	Empirical model NUTRET and statistical model MESAW		elo.10	On request from the contact, restricted to project consortium in 2010-2011	Per Stålnacke and Csilla Farkas. Bioforsk - Norwegian Institute for Agricultural and Environmental Research, FA Dahls vei 20, N-1432, Ås, Norway. Mobile: +47 93202520 E-mail: Per.Stalnalacke@bioforsk.no	Bioforsk Norway	RECOCA	6		
ReCoCa Input Data	Data of physical, anthropogenic and agricultural properties in the Baltic Sea catchment	ReCoCa, Input data, Agricultural area, Baltic Sea catchment	Watershed boundaries, Population data, Manure and Mineral fertilizer application, Crop types, Land Cover, Livestock, Atmospheric deposition, Soil types, Temperature and precipitation	Baltic Sea catchment	Spatial extension: Latitude: 48°30'N - 69°30'N Longitude: 7°30'E - 38°30'E Spatial resolution: Variable	Variable	Daily/annual			2009-2010. Last update 2010.	On request from the contact.	Christoph Humborg Baltic-NEST institute	Baltic-NEST institute	RECOCA	2		
ReCoCa Daisy Input Data	Data of physical, anthropogenic and agricultural properties in the Baltic Sea catchment	ReCoCa, Daisy, Input data, Agricultural area, Baltic Sea catchment	Watershed boundaries, Population data, Manure and Mineral fertilizer application, Crop types, Land Cover, Livestock, Atmospheric deposition, Soil types, Temperature and precipitation	Baltic Sea catchment	Spatial extension: Latitude: 48°30'N - 69°30'N Longitude: 7°30'E - 38°30'E Spatial resolution: Variable	Variable	Daily/annual			2009-2010. Last update 2010.	On request from the contact.	Christoph Humborg Baltic-NEST institute	Baltic-NEST institute	RECOCA	3		
ReCoCa SWAT Input Data	Data of physical, anthropogenic and agricultural properties in the river basins of: Pärnu, Kokemäenjoki, Nevezis, Odense fjord, Plonia, Berze, Kalixälven and Norrström	ReCoCa, SWAT, Input data, Agricultural area, Pärnu, Kokemäenjoki, Nevezis, Odense fjord, Plonia, Berze, Kalixälven, Norrström	Watershed boundaries, Population data, Manure and Mineral fertilizer application, Crop types, Land Cover, Livestock, Atmospheric deposition, Soil types, Temperature and precipitation	The River basins of: Pärnu, Kokemäenjoki, Nevezis, Odense fjord, Plonia, Berze, Kalixälven and Norrström	Spatial extension: See Area Spatial resolution: Variable	Variable	Daily/annual			2009-2010. Last update 2010.	On request from the contact.	Christoph Humborg Baltic-NEST institute	Baltic-NEST institute	RECOCA	4		

1) Title of dataset	2) General description of the dataset	3) Keywords	4) Parametres in the dataset	5) Area covered	6) Spatial resolution	7) Time span covered	8) Temporal resolution	9) Model applied with some information on calibration & validation	10) Forcing applied	11) Created	12) Availability	13) Originator/contact	14) Location of dataset	15) BONUS Project that produced the dataset	16) WP	References to sources of other datasets	Relevance to BONUS progress indicators:
MODEL DATA: Meta-data-set FUTURA II (Present and future climate)	Simulations with the coupled atmosphere-ice-ocean regional climate model RCO, driven by the output of either ERA-40 or the global climate simulations ECHAM5 and HadCM3 with the greenhouse gas emission scenarios A2 and A1B, offline simulations with RCO-SCOBI: Hindcast simulation: RCO-SCOBI driven by ERA-40 downscaled with RCA3 to 25km Scenario forcing data sets: RCO-ECHAM5 A1B_3, 25km RCO-HadCM3 A1B, 25km RCO-ECHAM5 A2, 25km RCO-ECHAM5 A1B_1, 25km Simulations: Four coupled physical-biogeochemical model simulations RCO-SCOBI driven by RCO	Regional climate model, coupled atmosphere-ice-ocean model ; future Baltic Sea, climate change	Variables describing the three-dimensional atmospheric and oceanic climate, including biogeochemical variables	Europe, parts of the North Atlantic	25 km in the atmosphere and 2 nautical miles in the ocean (RCO-SCOBI)	1961-2099	6-hourly for atmospheric variables, 2-daily for oceanic variables	model simulation	RCAO-ECHAM5 A1B_3, 25km; RCO-HadCM3 A1B, 25km; RCO-ECHAM5 A2, 25km; RCO-ECHAM5 A1B_1, 25km	2010 (RCAD), 2011 (RCO-SCOBI)	Data available from the Oceanographic Research Unit at SMHI (RCO-SCOBI) via the contact person;	Dr. Markus Meier, Swedish Meteorological and Hydrological Institute, Research Department, SE-60176 Norrköping, Sweden. Email: markus.meier@smhi.se, Dr. Anders Höglund Swedish Meteorological and Hydrological Institute, Research Department SE-60176 Norrköping, Sweden Email: anders.hoglund@smhi.se	Data available from the Oceanographic Research Unit at SMHI (RCO-SCOBI) via the contact person; Publication: Meier, H. E. M. et al., 2011. Hypoxia in future climates: A model ensemble study for the Baltic Sea. Geophys. Res. Lett. 38, L24608 (2011).	INFLOW/ECOSUPPORT	WP3 (INFLOW)		
Baltsem climate change scenarios	Climate change scenarios simulated with BALTSEM	Baltic Sea, climate change, transient simulations,	S, T, O ₂ , H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det P, Det Si, N ₂ fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P and Si; Cod reproductive volume	Baltic Sea including Kattegat	13 basins, about 1 m vertical resolution	1961-2100	daily outputs	BALTSEM, Gustafsson (2003), Savchuk (2005) etc.	RCAO ECHAM5 A1B 1, RCAO ECHAM5 A2, RCAO ECHAM5 A1B 3, RCAO HadCM3 A1B, 4 different nutrient land loads and nutrient atmospheric loads scenarios; statistically downscaled sea levels in Kattegat and runoff	2010	On request from the contact and through NEST system	BNI	BNI	ECOSUPPORT (COCOA)		2 (1)	
Baltsem present climate scenarios	Load scenarios in present climate with BALTSEM	Baltic Sea, transient simulations,	S, T, O ₂ , H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det P, Det Si, N ₂ fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P and Si; Cod reproductive volume	Baltic Sea including Kattegat	13 basins, about 1 m vertical resolution	300 years	daily outputs	BALTSEM, Gustafsson (2003), Savchuk (2005) etc.	statistical present climate forcing, 21 nutrient load scenarios spanning preindustrial loads to Ecosupport BAU	2014	On request from the contact and through NEST system	BNI	COCOA	1			
Baltsem-C climate change scenarios	Climate change scenarios with BALTSEM-C, that is including full organic and inorganic carbon cycles	Baltic Sea, climate change, transient simulations,	S, T, O ₂ , H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det P, Det Si, Det C, N ₂ fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P, Si and C; DON, DOP, DOC, TN, TP, DIC, total alkalinity, pH, pCO ₂ ; cod reproductive volume	Baltic Sea including Kattegat	13 basins, about 1 m vertical resolution	1961-2100	daily outputs	BALTSEM-C, Gustafsson (2003), Savchuk (2005), Gustafsson et al. (2014), etc.	RCAO ECHAM5 A1B 1, RCAO ECHAM5 A2, RCAO ECHAM5 A1B 3, RCAO HadCM3 A1B, 4 different nutrient land loads and nutrient atmospheric loads scenarios; statistically downscaled sea levels in Kattegat and runoff	2014	On request from the contact	BNI	COCOA	1			
Baltsem-C Scenarios for present climate	Load scenarios in present climate with BALTSEM-C, that is including full organic and inorganic carbon cycles	Baltic Sea, transient simulations,	S, T, O ₂ , H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det P, Det Si, Det C, N ₂ fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P, Si and C; DON, DOP, DOC, TN, TP, DIC, total alkalinity, pH, pCO ₂ ; cod reproductive volume	Baltic Sea including Kattegat	13 basins, about 1 m vertical resolution	300 years	daily outputs	BALTSEM-C, Gustafsson (2003), Savchuk (2005), Gustafsson et al. (2014), etc.	statistical present climate forcing, 9 nutrient load scenarios spanning preindustrial loads to Ecosupport BAU, including HELCOM PLC 5.5, BSAP	2014	On request from the contact	BNI	Blueprint and COCOA	5 and 1			
Baltsem-C long-term hindcast	Historical hindcast with BALTSEM-C, that is including full organic and inorganic carbon cycles	Baltic Sea, past climate, reconstruction	S, T, O ₂ , H ₂ S, PO ₄ , NH ₄ , NO ₃ , SiO ₄ , Detritus N, Det P, Det Si, Det C, N ₂ fixers, Spring and summer phytoplankton, and zooplankton; Benthic N, P, Si and C; DON, DOP, DOC, TN, TP, DIC, total alkalinity, pH, pCO ₂ ; cod reproductive volume	Baltic Sea including Kattegat	13 basins, about 1 m vertical resolution	1850-2006	daily outputs	BALTSEM-C, Gustafsson (2003), Savchuk (2005), Gustafsson et al. (2014), etc.	HiResAFF, + various reconstructions of other forcings	2014	On request from the contact	BNI	COCOA	1			
RCO-SCOBI climate change scenarios	coupled physical-biogeochemical model for the Baltic Sea forced with regionalized atmospheric data from climate change projections	Baltic Sea, climate change, transient simulations,	S, T, velocity, sea level, O ₂ , H ₂ S, PO ₄ , NH ₄ , NO ₃ , phytoplankton, zooplankton, benthic N, P	Baltic Sea including Kattegat	2 nautical miles (3.7 km), 83 vertical levels	1961-2100	two-daily outputs	RCO-SCOBI, Meier et al. (2003), Eilola et al. (2009) etc.	RCAO ECHAM5 A1B 1, RCAO ECHAM5 A2, RCAO ECHAM5 A1B 3, RCAO HadCM3 A1B, 4 different nutrient land loads and nutrient atmospheric loads scenarios; statistically downscaled sea levels in Kattegat and runoff	2010	On request from the contact	SMHI	ECOSUPPORT (COCOA)	2 (1)			
RCO-SCOBI long-term hindcast	coupled physical-biogeochemical model for the Baltic Sea forced with regionalized atmospheric data from climate change projections	Baltic Sea, past climate, reconstruction	S, T, velocity, sea level, O ₂ , H ₂ S, PO ₄ , NH ₄ , NO ₃ , phytoplankton, zooplankton, benthic N, P	Baltic Sea including Kattegat	2 nautical miles (3.7 km), 83 vertical levels	1850-2006	two-daily outputs	RCO-SCOBI, Meier et al. (2003), Eilola et al. (2009) etc.	HiResAFF, + various reconstructions of other forcings	2010	On request from the contact	SMHI	ECOSUPPORT (COCOA)	2 (1)			
Open boundary conditions for the COCOA coastal units	The RCO-SCOBI has a relatively high horizontal resolution (2 nautical miles) and is therefore expected to give good representation of the coastal dynamics. For every second day, a horizontally averaged depth-resolved profile was calculated for each of the coastal units that borders to the offshore from model results extracted along the outer boundary of the unit. The depth resolution is 3m. BALTSEM is only basin-wise resolved, but can complement with missing variables through its much more extensive representation of the carbon system. BALTSEM data is extracted for the similar time and depth intervals as RCO-SCOBI. The resulting data set is stored in a SQLite database so that enable convenient extraction of the data of interest. Simple to use interfaces to SQLite also exists for virtually all programming languages and statistical software tools so that models and data analysis can directly query for data. The boundary data set was tested by forcing the multi-basin one dimensional Swedish Coastal zone Model (SCM) for the Stockholm Archipelago (Wåhlinström et al., 2016).	Coastal zones, Baltic Sea, boundary conditions	RCO-SCOBI variables: Coastal Unit ID, Time, Depth, Salinity, Temperature (°C), Zooplankton (mg C/m ³), Diatoms (mg CHl/m ³), Flagellates and others (mg CHl/m ³), Cyanobacteria (mg CHl/m ³), Detritus (mg C/m ³), Ammonium (mmol/m ³), Nitrate (mmol/m ³), Phosphate (mmol/m ³), Oxygen (ml/l); Baltsem variables: Basin No, Time, Depth, Salinity, Temperature (°C), Dissolved oxygen (g O ₂ m ⁻³), Ammonium (mg N m ⁻³), Nitrate + nitrite (mg N m ⁻³), Phosphate (mg P m ⁻³), Silicate (mg Si m ⁻³), Nitrogen detritus (mg N m ⁻³), Phosphorus detritus (mg P m ⁻³), Biogenic silica (mg Si m ⁻³), Cyanobacteria (mg N m ⁻³), Diatoms (mg N m ⁻³), "other autotrophs" (mg N m ⁻³), Heterotroph community (mg N m ⁻³), Dissolved inorganic carbon (µmol kg ⁻¹), Total alkalinity (µmol kg ⁻¹), Total hydrogen sulphide (HS + H ₂ S) (µmol kg ⁻¹), Dissolved organic nitrogen, labile(mg N m ⁻³), Dissolved organic nitrogen, refractory(mg N m ⁻³), Dissolved organic phosphorus, labile (mg P m ⁻³), Dissolved organic phosphorus, refractory(mg P m ⁻³), Allochthonous dissolved organic carbon, labile(mg C m ⁻³), Allochthonous dissolved organic carbon, refractory(mg C m ⁻³), Autochthonous dissolved organic carbon, labile(mg C m ⁻³), Autochthonous dissolved organic carbon, refractory(mg C m ⁻³), Allochthonous carbon detritus (mg C m ⁻³), Autochthonous carbon detritus (mg C m ⁻³)	All of Baltic Sea	Time-series for the 782 COCOA Coastal Units that border to open sea. The data from RCO-SCOBI has depth resolution of 3 m and the BALTSEM data 5 m.	1990-2008	RCO-SCOBI data has bi-daily and BALTSEM daily time resolution	RCO-SCOBI, Meier et al. (2003), Eilola et al. (2009), Wåhlinström et al (2016); BALTSEM, Savchuk et al. (2012), Gustafsson et al. (2014a, 2014b, 2015)	RCO-SCOBI: HiResAFF, + various reconstructions of other forcings; BALTSEM: weather RCA-ERA40, sea level observations, see Savchuk et al. (2012) and Gustafsson et al. (2014) for land and atmospheric inputs and boundary condition time-series.	20161228	Restricted to project participants until end of project	SMHI and Baltic Nest Institute	On request from bo.gustafsson@su.se; http://cocoa.audk/data/	COCOA	1		
Maps of temporally explicit value projections for non-use and recreation benefits linked to scenarios	Map demonstrations of possible future provision of ecosystem services (ES) in theBaltic Sea focusing on use and non-use values benefits delivered by an eutrophication reduction programme across the Baltic Sea	Ecosystem Services; benefits; willingness-to-pay (WTP);	average annual WTP per person in baseyear; SSP1 yr2050 & 2100; SSP3 yr 2050 & 2100; SSP5 yr2050 & 2100.	all sub-basins of the Baltic Sea	9 sub-basins	2010-2100	2010; 2050; 2100	Benefit function based on contingent valuation method, using restricted interval regression.	n/a	June 2016	restricted	Marianne Zandersen (mz@envs.au.dk), Heini Ahtiainen (heini.ahtiainen@luke.fi). Reference of valuation study: http://dx.doi.org/10.1080/21606544.2014.901923.	BALTICAPP	3			

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Forcing data sets for transient simulations of the marine environment 1960-2100	The dataset consists of projections of nutrient loads (total N and total P) and fisheries effort for the period 2010-2100. The projections are developed for four Shared Socioeconomic Pathways (SSPs) selected for analysis: SSP1, SSP2, SSP3 and SSP5. The projections are based on modelling and numerical interpretation of the impacts of regional drivers as described in "D1.1 Regionalized SSPs resulting in a coherent set of climate and socioeconomic scenarios on nutrient loads".	Eutrophication; fisheries, nitrogen, phosphorus, shared socioeconomic pathways	total N load, total P load, fisheries effort	all sub-basins of the Baltic Sea	sub-basin; 117 catchments earlier used by BONUS RECOCA	2010-2100	5 y intervals	Global socioeconomic developments is based on SSP database of IIASA https://tmtcat.iiasa.ac.at/SspDb/dsd?Action=html&page&page=about . Initial loading (2010-12) is based on the HELCOM PLC5.5 SSP database of IIASA https://tmtcat.iiasa.ac.at/SspDb/dsd?Action=html&page&page=about . Initial apportionment is from HELCOM: PLC5 http://www.helcom.fi/lists/publications/bsep128.pdf .	The datasets provided here include only the expected impacts of alternative socioeconomic developments on the drivers and pressures. These datasets serve as inputs to further analysis. In the next phase the impacts of changing climate will be elaborated using HYPE model. Thereafter, the projections serve as inputs to biogeochemical model and transient simulations of the marine environment 1960-2100. The outputs from biogeochemical model serve as inputs to ECOSIM and ECOPATH ecosystem model, and eventually to cost-benefit analysis and final conclusions	August, 30, 2016	restricted	Kari Hyytiäinen (kari.hyytiainen@helsinki.fi), Sampo Pihlainen (sampo.pihlainen@helsinki.fi), Marianne Zandersen (mz@envs.au.dk), Hans Estrup Andersen (hea@bios.au.dk), Bo Gustafsson (bo.gustafsson@su.se), Matti Sihvonen (matti.sihvonen@helsinki.fi), Barbara Bauer (barbara.bauer@su.se), Maciej Tomczak (maciej.tomczak@su.se)	http://blogs.helsinki.fi/balticapp/intra/	BALTICAPP	1		
RCO-SCOBI model results	The dataset consists of projections of physical and biogeochemical properties concentrations for the period 1975-2100 for the Baltic Sea.	RCO-Scobi, Baltic Sea projections, Future climate scenarios	Physical and water quality properties concentration	Baltic Sea	320 x 362 grid cells, 83 depth levels	1975 to 2100	Monthly data	The projections are the results from RCO-SCOBI 3D model in different climate scenarios using combinations of: 4 different atmosphere conditions projections, resulting from 4 Global Climate Models; 2 different climate conditions (RCP) and 3 nutrient loads conditions		27-03-2017	Available withing the project upon request	Sofia Saraiva (sofia.saraiva@smhi.se), Markus Meier (markus.meier@io-warnemuende.de), Helén Andersson (helen.andersson@smhi.se) and Nyström Karin (karin.nystrom@smhi.se)	SMHI server	Baltic APP	1		
Emissions from Baltic Sea shipping in 2011	Gridded binary data in netcdf/CF1.0. Contains atmospheric emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 from ships	Ship emissions, NOx, SOx, CO2, CO, Parituculate Matter, Elementary Carbon, Organic Carbon, Baltic Sea	Atmospheric emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 (unit: kg/grid cell)	Baltic Sea (lat 66.0000-53.297993; lon 9.6-30.564407)	Grid dimensions nx=590; ny=707; nt=1 hour; Geographical resolution about 2 by 2 km	"2011.01.01-2011.12.31"	One hour	Output of Ship Traffic Emission Assessment Model (STEAM)		"2015.09.15"	Available on request	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	Available on request through FTP connection (ftp.pub.fmi.fi)	SHEBA	1	Based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shipment/	
Emissions from North Sea shipping in 2011	Gridded binary data in netcdf/CF1.0. Contains atmospheric emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 from ships	Ship emissions, NOx, SOx, CO2, CO, Parituculate Matter, Elementary Carbon, Organic Carbon, North Sea	Atmospheric emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 (unit: kg/grid cell)	North Sea (lat 48.217995-62.200000; lon -5.200000 -12.968457)	Grid dimensions nx=577; ny=778; nt=1 hour; Geographical resolution about 2 by 2 km	"2011.01.01-2011.12.31"	One hour	Output of Ship Traffic Emission Assessment Model (STEAM)		"2015.09.15"	Available on request	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	Available on request through FTP connection (ftp.pub.fmi.fi)	SHEBA	1	Based on Automatic Identification System data from North Sea countries.	
Emissions from Baltic Sea shipping in 2014	Web Map Service layer. Contains atmospheric emissions of NOx, SOx, CO, CO2, PM2.5 and transport work of ships	Ship emissions, NOx, SOx, CO2, CO, Particulate Matter, Baltic Sea, Transport work, Payload	Transport work and Atmospheric emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 (unit: kg/grid cell for pollutants, ton/km for transport work)	Baltic Sea (lat 66.0000-53.297993; lon 9.6-30.564407)	Grid dimensions nx=590; ny=707; nt=1 hour; Geographical resolution about 2 by 2 km	"2014.01.01-2014.12.31"	Annual total, no temporal variation	Output of Ship Traffic Emission Assessment Model (STEAM)		"2015.09.15"	Openly available	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	http://codm.hzg.de/sheba/thredds/catalog/publicAll/emissions/catalog.html	SHEBA	1	Based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shipment/	
Estimated pleasure boat activity data in the Baltic Sea in 2014	Web Map Service layer, Gridded data, Contains annual fuel consumption estimates for pleasure boats	Ship emissions, pleasure boats, Baltic Sea	Annual gasoline and diesel fuel consumption per grid cell (unit: kg/grid cell)	Baltic Sea (lat 66.0000-53.297993; lon 9.6-30.564407)	Grid dimensions (approximate) nx=1500; ny=1800; nt=1 year; Geographical resolution about 750 by 750 m)	"2014.01.01-2014.12.31"	Annual total, temporal variation curve (table) delivered separately	Output of Ship Traffic Emission Assessment Model's (STEAM) Pleasure boat Activity Simulator (in development)		"2016.05.20"	Openly available	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	http://codm.hzg.de/sheba/thredds/catalog/publicAll/emissions/catalog.html	SHEBA	4	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shipment/	
Emissions from ships in Riga port area during 2014	Web Map Service layer, Gridded data	Ship emissions, Riga, port emissions, Baltic Sea	Annual emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 and PM2.5 per grid cell (unit: kg/grid cell)	Riga area of Latvia (lat 56.8822-57.1; lon 23.95-24.1958)	Grid dimensions (approximate) nx=60; ny=98; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2014.01.01-2014.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.06.01"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	http://codm.hzg.de/sheba/thredds/catalog/restrictedAccess/FMI-STEAM/2014/POR_T_STUDIES/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shipment/	
Emissions from ships in Rostock/Warnemunde port areas during 2014	Web Map Service layer, Gridded data	Ship emissions, Rostock, Warnemunde, port emissions, Baltic Sea	Annual emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 and PM2.5 per grid cell (unit: kg/grid cell)	Rostock/Warnemunde area of Germany (lat 54.0572-54.2723; lon 11.96-12.1632)	Grid dimensions (approximate) nx=54; ny=98; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2014.01.01-2014.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.06.01"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	http://codm.hzg.de/sheba/thredds/catalog/restrictedAccess/FMI-STEAM/2014/POR_T_STUDIES/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shipment/	
Emissions from ships in Gdansk, Gdynia, Sopot port areas during 2012	Web Map Service layer, Gridded data	Ship emissions, Gdansk, port emissions, Baltic Sea	Annual emissions of NOx, SOx, CO, CO2, EC, OC, Ash, SO4 and PM2.5 per grid cell (unit: kg/grid cell)	Tri-City area of Poland (Gdansk, Gdynia, Sopot) (lat 54.3022-54.63; lon 18.4-18.9962)	Grid dimensions (approximate) nx=156; ny=147; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2012.01.01-2012.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.08.26"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restrictedAccess/bigdata/FMI-STEAM/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shipment/	

1) Title of dataset	2) General description of the dataset	3) Keywords	4) Parametres in the dataset	5) Area covered	6) Spatial resolution	7) Time span covered	8) Temporal resolution	9) Model applied with some information on calibration & validation	10) Forcing applied	11) Created	12) Availability	13) Originator/contact	14) Location of dataset	15) BONUS Project that produced the dataset	16) WP	References to sources of other datasets	Relevance to BONUS progress indicators:
Emissions from ships in Gothenburg port area during 2014	Web Map Service layer, Gridded data	Ship emissions, Gothenburg, port emissions, Baltic Sea	Annual emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ and PM _{2.5} per grid cell (unit: kg/grid cell)	Gothenburg area of Sweden (lat 57.6342-57.822; lon 11.758-12.1312)	Grid dimensions (approximate) nx=90; ny=85; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2012.01.01-2012.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.08.26"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-STEAM/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from ships in Riga port area during 2014	Web Map Service layer, Gridded data	Ship emissions, Riga, port emissions, Baltic Sea	Annual emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ and PM _{2.5} per grid cell (unit: kg/grid cell)	Riga area of Latvia (lat 56.8822-57.1; lon 23.95-24.1958)	Grid dimensions (approximate) nx=60; ny=98; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2012.01.01-2012.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.08.28"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-STEAM/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from ships in Rostock/Warnemunde port areas during 2014	Web Map Service layer, Gridded data	Ship emissions, Rostock, Warnemunde, port emissions, Baltic Sea	Annual emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ and PM _{2.5} per grid cell (unit: kg/grid cell)	Rostock/Warnemunde area of Germany (lat 54.0572-54.2723; lon 11.96-12.1632)	Grid dimensions (approximate) nx=54; ny=98; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2012.01.01-2012.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.08.26"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-STEAM/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from Baltic Sea shipping in 2014	Gridded binary data in netcdf/CF1.0. Contains atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ from ships	Ship emissions, NO _x , SO _x , CO ₂ , CO, Parituculate Matter, Elementary Carbon, Organic Carbon, Baltic Sea	Atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ (unit: kg/grid cell)	Baltic Sea (lat 66.0000-53.297993; lon 9.6-30.564407)	Grid dimensions nx=590; ny=707; nt=1 hour; Geographical resolution about 2 by 2 km)	"2014.01.01-2014.12.31"	One hour	Output of Ship Traffic Emission Assessment Model (STEAM)		"2016.08.10"	Available on request	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-STEAM/catalog.html	SHEBA	WP2	Based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from Baltic Sea shipping in 2011	Gridded binary data in netcdf/CF1.0. Contains atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ from ships	Ship emissions, NO _x , SO _x , CO ₂ , CO, Parituculate Matter, Elementary Carbon, Organic Carbon, Baltic Sea	Atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ (unit: kg/grid cell)	Baltic Sea (lat 66.0000-53.297993; lon 9.6-30.564407)	Grid dimensions nx=590; ny=707; nt=1 hour; Geographical resolution about 2 by 2 km)	"2011.01.01-2011.12.31"	One hour	Output of Ship Traffic Emission Assessment Model (STEAM)		"2016.08.10"	Available on request	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-STEAM/catalog.html	SHEBA	WP2	Based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from ships in Gdansk, Gdynia, Sopot port areas during 2014	Web Map Service layer, Gridded data	Ship emissions, Gdansk, port emissions, Baltic Sea	Annual emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ and PM _{2.5} per grid cell (unit: kg/grid cell)	Tri-City area of Poland (Gdansk, Gdynia, Sopot) (lat 54.3022-54.63; lon 18.4-18.9962)	Grid dimensions (approximate) nx=156; ny=147; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2014.01.01-2014.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.06.01"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://codm.hzg.de/sheba/thredds/catalog/restricted/Access/FMI-STEAM/2014/POR_T_STUDIES/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from ships in Gothenburg port area during 2014	Web Map Service layer, Gridded data	Ship emissions, Gothenburg, port emissions, Baltic Sea	Annual emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ and PM _{2.5} per grid cell (unit: kg/grid cell)	Gothenburg area of Sweden (lat 57.6342-57.822; lon 11.758-12.1312)	Grid dimensions (approximate) nx=90; ny=85; nt=744 (For January, number of hours varies by month); Geographical resolution about 250 by 250 m). Data in two layers: below 36 m and above 36 m height	"2014.01.01-2014.12.31"	Hourly update of ship emissions	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2016.06.01"	Restricted to BONUS secretariat and SHEBA consortium	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://codm.hzg.de/sheba/thredds/catalog/restricted/Access/FMI-STEAM/2014/POR_T_STUDIES/catalog.html	SHEBA	WP2	Temporal variation of activities is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from Baltic Sea shipping in 2012	Gridded binary data in netcdf/CF1.0. Contains atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ from ships	Ship emissions, NO _x , SO _x , CO ₂ , CO, Parituculate Matter, Elementary Carbon, Organic Carbon, Baltic Sea	Atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ (unit: kg/grid cell)	Baltic Sea (lat 66.0000-53.297993; lon 9.6-30.564407)	Grid dimensions nx=590; ny=707; nt=1 hour; Geographical resolution about 2 by 2 km)	"2012.01.01-2012.12.31"	One hour	Output of Ship Traffic Emission Assessment Model (STEAM)		"2016.08.10"	Available on request	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-STEAM/catalog.html	SHEBA	WP2	Based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-fact-sheets/hazardous-substances/emissions-from-baltic-sea-shiping/	
Emissions from North Sea shipping in 2011	Gridded binary data in netcdf/CF1.0. Contains atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ from ships	Ship emissions, NO _x , SO _x , CO ₂ , CO, Parituculate Matter, Elementary Carbon, Organic Carbon, North Sea	Atmospheric emissions of NO _x , SO _x , CO, CO ₂ , EC, OC, Ash, SO ₄ (unit: kg/grid cell)	North Sea (lat 48.217995-62.200000; lon 5.2000000-12.968457)	Grid dimensions nx=577; ny=778; nt=1 hour; Geographical resolution about 2 by 2 km)	"2011.01.01-2011.12.31"	One hour	Output of Ship Traffic Emission Assessment Model (STEAM)		"2015.09.15"	Available on request	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekkajalkanen@fmi.fi)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-STEAM/catalog.html	SHEBA	WP2	Based on Automatic Identification System data from North Sea countries.	
Current air pollution and deposition in the Baltic Sea area	Netcdf files of air pollutant concentrations (O ₃ , SO ₂ , NO ₂ , NO ₃ (p), SO ₄ (p)) and deposition of S and N containing species as well as ash mineral particles	Ship emissions, air quality, deposition, Baltic Sea	Air pollutant concentrations of gases (in ppb) and particles (in µg/m ³). Deposition as monthly sums of S, N and mineral ash in kg/ha.	Baltic Sea (lat 65.9888-63.4525; lon 8.9706-31.0635)	Grid dimensions nx=441; ny=251; nt= 8784 hours; Geographical resolution 0.05 degrees x 0.05 degrees)	"2012.01.01-2012.12.31"	hourly	CMAQ on 4 x 4 km ² , nested into bigger domains of 16 x 16 km ² for Central Europe and 64 x 64 km ² for entire Europe. Ship emissions from STEAM, land based emission from EMEP and EPER, processed with SMOKE for Europe	Boundary conditions from SILAM, Meteorological fields from COSMO CLM	"2016.12.09"	Public	Helmholtz-Zentrum Geesthacht, Institute of Coastal Research; Matthias Karl (matthias.karl@hzg.de) and Volker Matthias (volker.matthias@hzg.de)	http://sheba.hzg.de/thredds/catalog/restricted/Access/FMI-DEL12_3/catalog.html	SHEBA	WP2	Ship emissions are published as Deliverable 2.1 in SHEBA	

1) Title of dataset	2) General description of the dataset	3) Keywords	4) Parametres in the dataset	5) Area covered	6) Spatial resolution	7) Time span covered	8) Temporal resolution	9) Model applied with some information on calibration & validation	10) Forcing applied	11) Created	12) Availability	13) Originator/contact	14) Location of dataset	15) BONUS Project that produced the dataset	16) WP	References to sources of other datasets	Relevance to BONUS progress indicators:
Underwater noise energy from Baltic Sea shipping	Web Map Service layer, Gridded data, 12 monthly files, three noise energy data layers (63, 125 and 2000 Hz)	Ship emissions, Baltic Sea, underwater noise energy	Monthly emissions of NOx, SOx, CO, CO2, PM2.5, transport work, grey water, black water, ballast water, bilge water, antifouling paint (CuO), stern tube oil, food waste nitrogen, noise energy /63, 125, 2000 Hz), scrubber washwater (open and closed loop separately) per grid cell (unit: air emissions in kg/square km, water emissions in liters/square km, sound energy in Joules/square km)	Baltic Sea (lon 9-30.5822; lat 53.288990-66.00)	Grid dimensions nx=1180; ny=1415; nt=1; Geographical resolution 1 square km). The file contains 18 data layers describing monthly sums of emitted species	"2014.01.01-2014.12.31"	Monthly total sum	Output of Ship Traffic Emission Assessment Model's (STEAM)		"2017.01.13"	Restricted to other programme participants	Atmospheric Composition Research/Finnish Meteorological Institute; Lasse Johansson (lasse.johansson@fmi.fi) and Jukka-Pekka Jalkanen (jukka-pekka.jalkanen@fmi.fi)	http://sheba.hzge.de/hredds/catalog/publicAll/WP4-Noise/Scenario0/12/catalog.html?dataset=publicDataSetScan/WP4-Noise/Scenario0/12/allPollutants_netcdf.nc	SHEBA	WP4	Ship activity is based on Automatic Identification System data from HELCOM member states. See http://www.helcom.fi/baltic-sea-trends/environment-factsheets/hazardous-substances/emissions-from-baltic-sea-shipping/	