

Rijkswaterstaat Ministry of Infrastructure and Water Management

21st International Conference on Aquatic Invasive Species (ICAIS 2019)

New Development in Management and Control

27-31 October 2019 Le Centre Sheraton, Montreal, QC, Canada Alien species Management Policies in the Trilateral Wadden Sea

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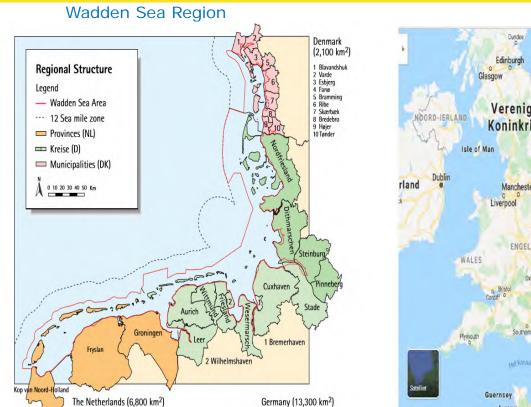




General overview of Wadden Sea
 National Policy making
 Trilateral Wadden Sea Corporation TWSC
 Alien species Working Group
 The MAPAS for the Wadden Sea
 Conclusions and Next steps

General overview





Map of Europe



11/12/2019

General Overview









1. The Australian barnacle (Austrominius modestus) was introduced with hull fouling,

2. The American slipper limpet (Crepidula fornicata) reached the Wadden Sea with shellfish imports and

3.The Japanese seaweed (Sargassum muticum) was most likely introduced with oyster imports (Lackschewitz et al., 2015)

(Photos: Christian Buschbaum).



General overview



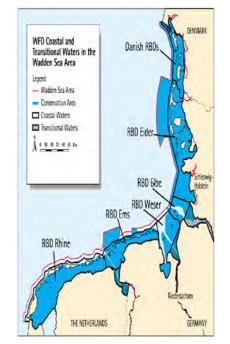
Main features & policy relevant designated areas



Sand dunes, Salt marshes, intertidal areas



Birds directive and special areas of conservation



WFD and Transitional waters in the Wadden sea



World heritage areas

National Policies





Wadden Sea Nature and Wildlife Reserve, municipal administration of the international protection areas in the Wadden Sea region.



Federal Nature conservation Act sets frame work for nature reserves and national parks for Hamburg, Lower Saxony and Schleswig-Holstein .



Planning Decision Wadden Sea, (PKB, since 1980), under the Nature Conservation Act 1998,

+ additional designation such as the Flora and Fauna Act. And EHS

Purpose of Trilateral Wadden Sea Corporation (TWSC)

1978

- 1. To achieve natural and sustainable ecosystem;
- 2. To protect and conserve the ecological entity;
- 3. To monitor and assess the quality of the Wadden Sea ecosystem;
- 4. To cooperate internationally with other marine sites;
- 5. To engage the public in the protection of the Wadden Sea;
- 6. To secure the sustainable development of the Wadden Sea Region .

Trilateral Conferences



1978-2018

- 1978 1st Wadden Sea Conference, The Hague, NL; Decision to strengthen the cooperation
- 1980 2nd Wadden Sea Conference, Bonn, DE; Coordination of scientific research
- 1982 3rd Wadden Sea Conference, Copenhagen, DK; Adoption of the joint declaration
- 1985 4th Wadden Sea Conference, The Hague, NL; Decision to establish a common secretariat
- 1988 5th Wadden Sea Conference, Bonn, DE; Agreement on the protection of seals
- 1991 6th Wadden Sea Conference, Esbjerg, DK; Guiding principle, common management principles and objectives
- 1994 7th Wadden Sea Conference, Leeuwarden, NL; Common delimitation, common targets
- 1997 8th Wadden Sea Conference, Stade, DE; Wadden Sea Plan
- 2001 9th Wadden Sea Conference, Esbjerg, DK; Wadden Sea forum
- 2005 10th Wadden Sea Conference, Schiermonnikoog, NL; Harmonization EC directives
- 2010 11th Wadden Sea Conference, Sylt, DE; Adopted the updated Wadden Sea plan; climate change, alien species
- 2014 12th Wadden Sea Conference, Tønder, DK; Strengthening of cooperation on World Heritage matters
- 2018- 13th Wadden Sea Conference, Leuwarden, NL, Declaration on education, MAPAS, international cooporation

TWSC Challenges



- 1. Adaptation of different governance mechanisms and architectures
- 2. Transnational cooperation and coordination on (marine) issues
- 3. Development of mechanisms for cooperation within the Wadden Sea
- 4. Ensuring Coherence between all policies affecting the use of Wadden Sea
- 5. Create inclusive processes of decision making (participatory, transparency)
- 6. Overcoming language and cultural barriers
- 7. Designing a flexible and adaptive processes for decision making
- 8. Enhancing flexibility and institutional learning in complex policy context

Trilateral Policy



Organogram: TWSC



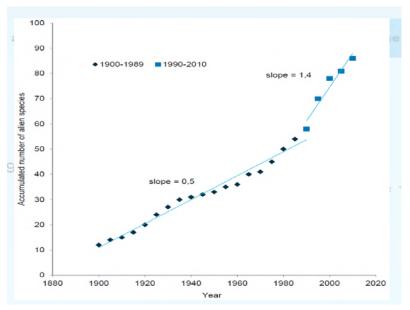
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Partners

Alen species WG



Introductions 1880-2018



The accumulated number of alien species introduced between 1900–1989 and 1990–2010.

Most targets in the Wadden Sea Plan (2010) could be affected by Alien species

- 1. Salt marsches vs Spartina anglica
- 2. Blue musselbeds vs Pacific oysters
- 3. Natural beach vegetation vs Rosa rugosa
- 4. Estuarine tidal dynamics vs Chines mitten crabs { *Eriocha sinensis*)
- 5. Eider ducks vs Atlantic jack knife clam (Ensis directus)



Alien Species Strategy

Trilateral Strategic Framework for Aliens Species (TSFAS)

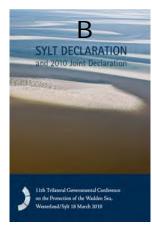
-Documents A,B and C -Consideration for vectors: ballastwater,biofouling,aquaculture, and terrestrial introductions



Pacific austers © NLPV



The UNESCO request of 2009,



§26 the Sylt declaration (CWSS, 2010b) §33 the Tønder Declaration (CWSS, 2014),

Ministerial Council Meeting

2th Trilateral Governmental Conference

the Protection of the Wadden Sea

Target is to develop: "AS Strategy" and "Management Action Plan" (MAPAS)



Based on the guiding principle of the TWSC:

To achieve as far as possible , a natural and sustainable ecosystem in which natural processes proceed in an undisturbed way

Working procedure:

- 1. Analysis of national, Regional and International policies
- 2. Revision of existing AS management models
- 3. Organized workshops on common monitoring program
- 4. Made inventory of aquatic and terresrial alien species
- 5. Constantly reveiwed and discussed common interests regarding national AS mamangement strategies.

Policy analysis



International/Global Conventions

Year of first Implementation	Global Conventions	Relevance to IAS manangement	
1951	IPPC/EPPO! 1951, plant health border control, against plant AS	Plant health and border control	
1975	Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES, (Washington Convention)	that international trade of live plant and animal should not threaten survival	
1975	The Convention on Wetlands (RAMSAR CONVENTION) conservation Of wetlands and water birds	maintaining the ecological character of wetland of international importance	
1979	Convention on the Conservation of Migratory Species of Wild Animals (CMS, Bonn Convention)	to conserve terrestrial, aquatic and avian migratory species in their range	
1993	Convention on Biological Diversity (CBD) 1992	in-situ conservation of biological diversity	
1982	United Nations Convention on the Law of the Sea (UNCLOS) 1982	Protect and preserve marine environment:	
2015	Convention for the Control and Management of Ships' Ballast Water and sediment (BWMC) IMO 2004.	prevent, reduce, control "pollution" treat Ballast water to reduce potential introduct and dispersion of IAS	
1995	Food and Agricultural Organization Of the United Nations, FAO 1995/		
2000	International Union for Nature Conservation (IUCNI 2000)		
2012	IMD Biofouling guidelines, IMO 2012		
2003	International Council for Exploration of the Sea, ICES, 2003		

Regionaal Conventions

rear of first	Convention/Regulations	Relevance to IAS manangement
1998	Oslo and Paris Convention (OSPAR) Osloland/Paris/Commissions,1 19921 North/East Atlantic, ballast/water, ports	"pollution" that may harm protection of the marine environment of the North-East Atlantic
2000	Baltic Marine Environment Protection Helsink Commission (HELCOM) 1992	prospects a healthy Baltic Sea with good environmental status
1995	African, Eurasian Waterbirds Agreement! (AEWAI 1995)	Deals with invasive species capable of threatening the existence of others eq Ruddy duck <i>Oxyura Jamaicensis</i> as opposed to White headed duck <i>OxJeucoophala</i>
1975	Bern Convention (1979) European Biodiversity project/species.Related, project/ispecies!	Conservation and preservation of wild flora and fauna and to promote European co- operation in that area
1997/ 2010	Trilateral Wadden Sea Plan -common policy and management plan to protect and management Wadden Sea Area - support and intensity efforts to harmonicusly prevent, manage and monitor aquatic and terrestral alien species introductions through a common strategy for ballast waters and adjuacititume management.	
2010	Joint Declaration on the Protection of the Wadden Sea (Sylt Declaration)	To achieve as far as possible, a natural and asetainable ecosystem in which natural processes proceed in an undisturbed way through a coordinated and consident management, including the production and implementation of a periodically updated Wadden Sea Plan.
2014	Tönder Declaration	further develop the trilateral strategic framework for dealing with alien species in the Wadden Sea and to coordinate the further development of an alien species management and action plan
2018	Leeuwarden declaration	

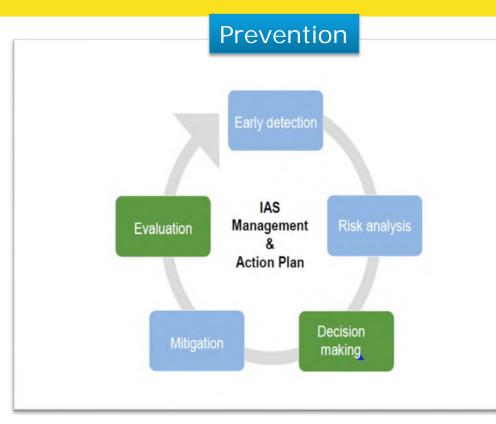
European/Regional Policies

Year of first implementation	European policies/ directives/regulations	Relevance to IAS manangement
1982	Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)	control of LAS introduction
1979	Birds Directive 79/409/EECIN20001 1979 Conservation birds project activity related	no prejudice of local biota by introductions of birds to habitats where they don't occur naturally
1992	Habitat Directive 92/43/EEC N2000 1992 conservation habitats project/activity related	no prejudice of natural habitats of wild native fauna and flora by introduction of other species
1997	EU Council Regulation 338/97/trade, related 1997	
2000	Water Framework Directive (WFD),2000/60/EC, Conservation freshwater habitats general policy	good environmental potential of surface water, no "bio" pollution
2008	Marine Strategy Framework Directive (MSFD) 2008/56/ECI MSFD	1AS as descriptor 2 to reach good environmental status
2007/8	EU regulation concerning use of alien and locally absent species in aquaculture ,CouncilIregulation1708/2007	protect aquatic environment from risk of nan-native/invasive AS through use in aquaculture
2015	Regulation on the prevention and management of the introduction and spread of invasive alien species	prevention, early warning & rapid response, and management of IAS, IAS-List of Union concern
2014	Council Regulation on prevention and Management of IAS,1143/2014/EUHASI 2014	.pathway related /location! Specific , area specific



Outcome





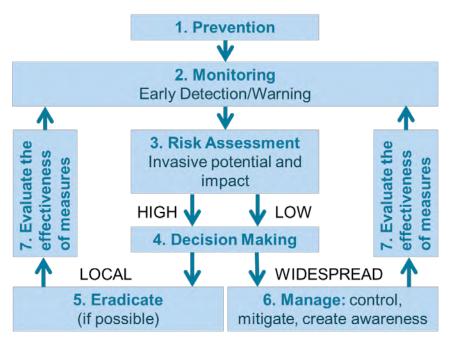
Outcome of National, Regional and International policy analysis

- 1. Prevention
- 2. Early detection,
- 3. Monitoring,
- 4. Risk assessment,
- 5. Decision making,
- 6. Management/Control
- 7. Eradication
- 8. Evaluate measures
- 9. Communication





Model for Management and Action Plan



Trilateral Wadden Sea Management and Action Plan for Alien Species (MAPAS) **Final draft** Authors: Trilateral Working Group Alien Species & A. Gittenberger WADDEN

https://www.waddenseaworldheritage.org/resources/ management-and-action-plan-alien-species-mapas

Conclusion & next steps



Task category	MAPAS actions and recommendations to be implemented
	Information and best practice exchange about mitigation measures, nuisance species , eradication and management, new AS (Alert System).
	AS reporting options for stakeholders and public should be made known
	Trilaterally shared risk assessment
NETWORK	Information exchange on measures for eradication of harmful terrestrial AS
	Picture and information database on AS identification for all countries
PLATFORM	Sharing data about invasive alien species on trilateral level
	When feasible, appropriate measures against AS
	Sharing information campaigns on trilateral level
	All AS data publicly available via portal
	Concept development for network platform (website)
	Trilaterally combined pathway analysis already conducted on national level
	Overview AS monitoring approaches
	Maintain trilateral database of alien species (also network platform)
	Raise AS data and knowledge from national to trilateral level
MONITORING	Harmonize, optimize and develop AS monitoring methods on national and trilateral level
montroluto	Initialise trilateral terrestrial AS monitoring
	Terrestrial AS monitoring by citizen sciences (also network platform)
	Monitoring: substrate selection procedures, habitats with focus on 'hot spots', all fauna and flora species to be considered in all habitats and substrates, extended rapid assessment (mainly in 2021)
	Alien species be considered in all TMAP monitoring programmes
	Disseminate and evaluate the IMO & other guidelines, regulations
	Coordination in development info- and guidance material for relevant target groups
INFORMATION	National information campaign
INFORMATION,	Coordination in development education material
COMMUNICATION	Development on-line learning programs
COMMUNICATION	Expert group is raising awareness on AS
AND EDUCATION	Workshop on aquaculture/shellfish import and mussel transfer



THANK YOU





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