

# Project „Coast watch“



In collaboration with  
Multimar Wattforum



- Overview
  - Goals
  - History
- Methods
- Investigation areas
- Results

# Project description

## ■ Inspection of coasts

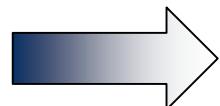
- at least 500m coastal survey
- with the same baseline questionnaire  
(inflows, waste, threats)
- with national adaptations



# Goals

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- Improve knowledge of the environment
- Raise public awareness
- Gather, store and analyze baseline data
- Protection and sustainable use of our coastal resources



Become an advocate  
for the coast!



# History

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<b>1987</b>	Ireland
<b>1989</b>	Norway, Denmark, Netherlands, Portugal, United Kingdom, Iceland, Italy, Germany, Belgium
<b>1990</b>	Latvia, Spain, Sweden
<b>1991</b>	Greece, Estonia, Lithuania, Poland
<b>1992</b>	France, Bulgaria, Ukraine, part of Finland
...	Romania, Turkey, Russia, Japan



# Organisation

Local Surveyor



National coordination



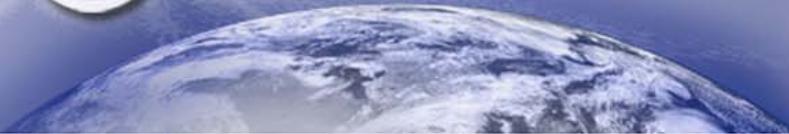
International coordination

Collecting data



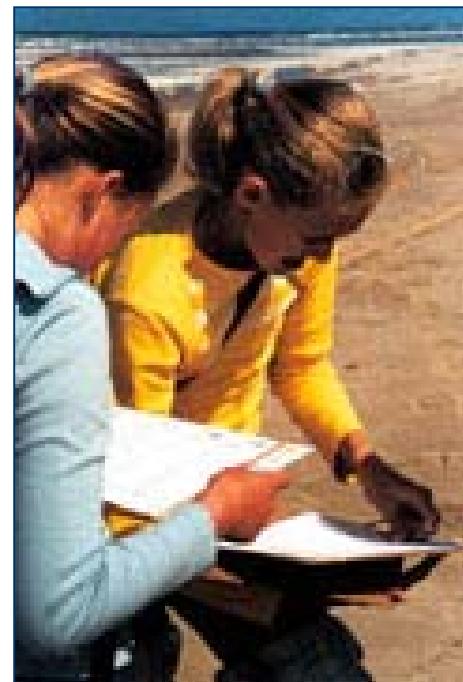
Providing survey form, sorting and  
adding data to map for the country

Collection of national results and  
production of International Reports



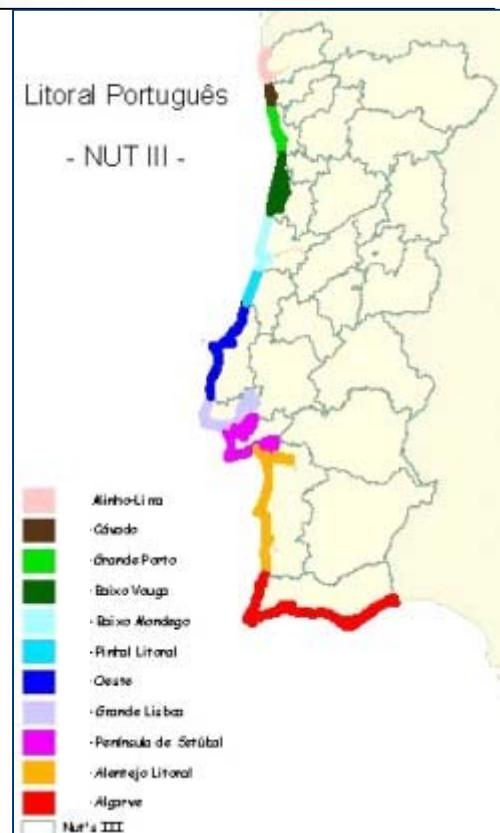
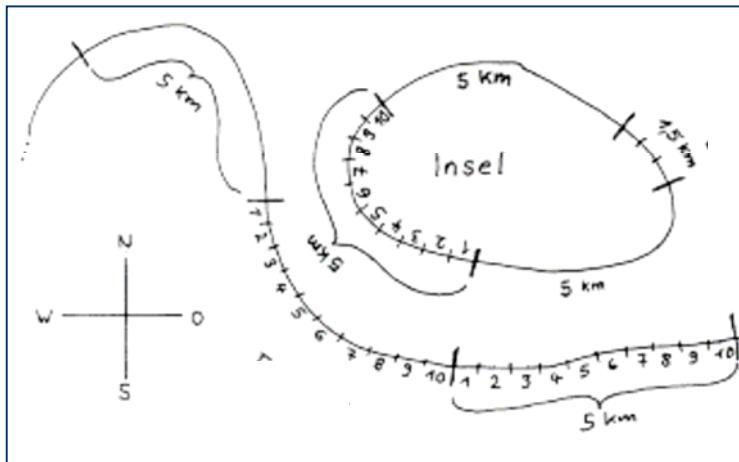
# Materials

- Coast watch survey form  
(Standardized questionnaire)
- „Coast watch“ guide



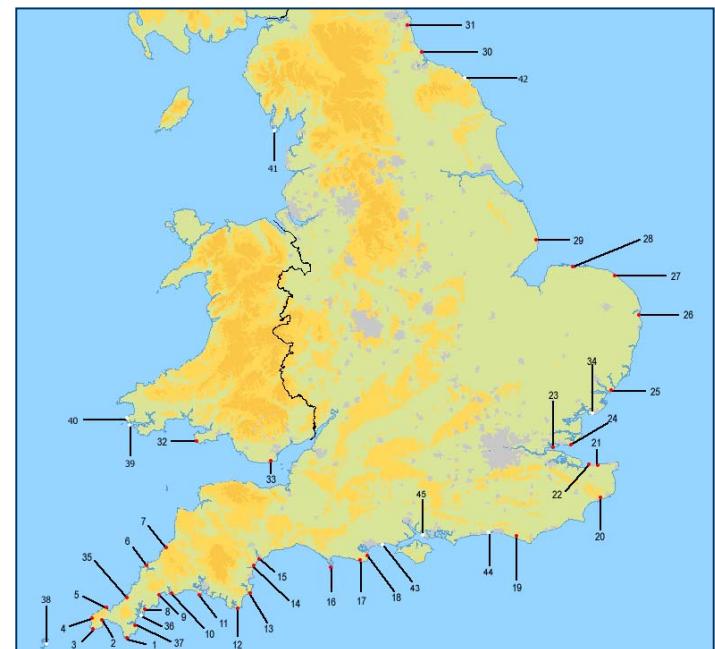
# Methods

- Each unit gets an unique code from the European NUT code system
- Division of coastline in 5 km blocks
- Subdivision in 10 x 0,5 km units



# Time schedule

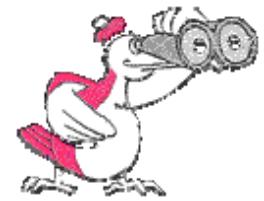
- Main investigating time (local schools near the Sea) or
  - Each year from mid-September to mid-October
- On class trips (whole year)
- Survey around Low tide



# Methods

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- Preparation
  - Reading questionnaire and guidebook
  - Selection of a certain stretch of the shore
  - Checking the tides and thinking about Safety
  - Packing fieldtrip gear
- Collecting data
  - Observing the coast
  - Measuring environmental factors
  - Filling out the questionnaire and sending results
- Feedback
  - Inputting data into a database III computer program
  - Returning results to surveyors



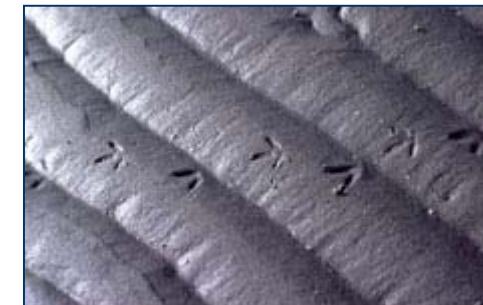
# Investigation areas

## ■ General questions:

- site well known, a little or first visit?
- specially designed area?
- access to shore (eg. by foot, by vehicle)

## ■ Range of parameter:

- Streams and pipes entering
- Levels of littering
- Shore uses and misuses
- Animals (alive or dead) and plants
- Threats (erosion, agriculture etc.)
- in some cases nitrate, nutrient and microbiological water quality test



## Investigation areas

### ■ Animals

- Mussels
- Crustaceans
- Sea Urchins
- Sea anemones
- Starfish
- Worms
- Fish
- Sea birds
- Mammals



## Investigation areas

- Plants

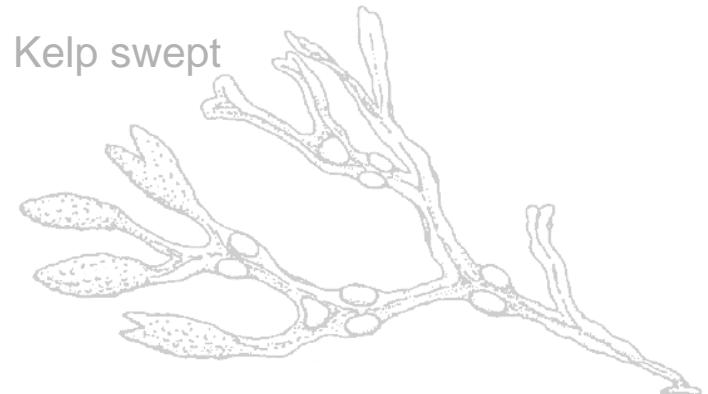
- Seaweed or Algae
  - Brown Seaweed
  - Red Seaweed
  - Green Seaweed
- Common Reed
- Felgrass
- Cord grass
- Sea Thrift
- Glasswort

Sea lettuce



Cord grass

Kelp swept



## Investigation areas

- large waste objects
  - Furniture
  - Household refuse sacks
  - Landfill derived waste
  
- smaller litter items
  - Wood
  - Plastic
  - Paper
  - Metal
  - Textiles
  - Nets



# Data analysis

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- Sort and code check of completed questionnaire by national coordinators
- Data entry in Dbase III program
- Send to international coordination unit via Computer
- Data analysis in ASCII format
- Publishing reports with the results



# Results

- ~14.000 returned questionnaire
- Hard and semi quantitative data like
  - hinterland character etc.
  - intertidal vegetation and sediment etc.
- Data which may not be reproducible like
  - degree of littering
  - mobile animals
- Results which are influenced through perception like
  - threats



# Results

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## Hinterland use

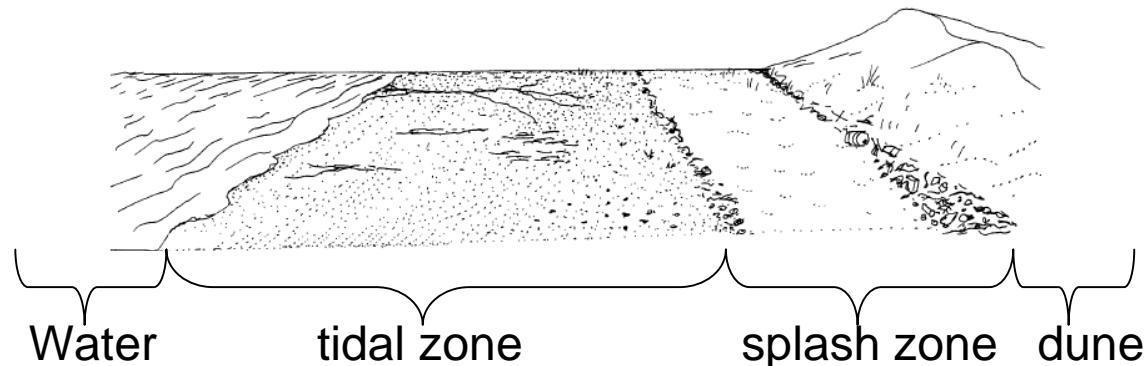
- dominated by human activity (75%)
  - intensive grazing (28%)
  - tillage farming (13%)



# Results

## ■ Splash zone

- width between 5 and 50 m (50%)
- dominated by sand, gravel and stones (53,9% ), followed by hard structures (24%)

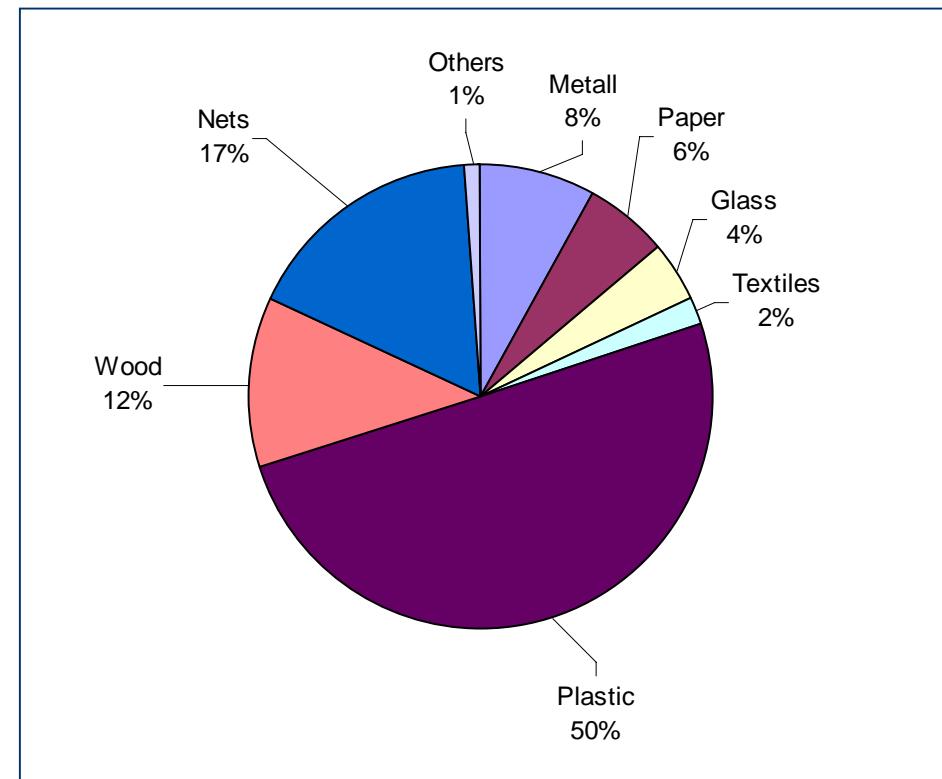
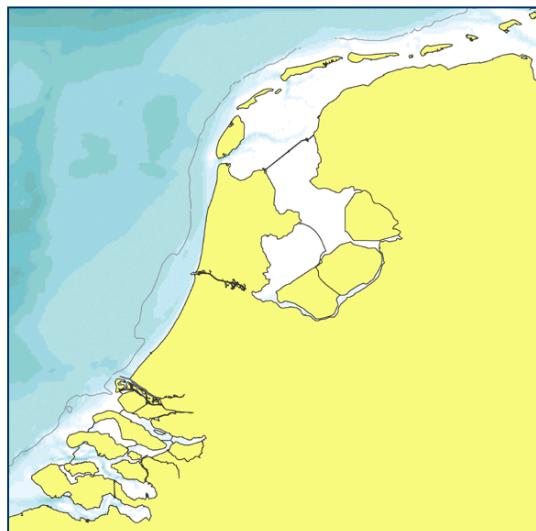


# Results

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## ■ Waste

- 78 km in Netherlands
- smaller litter items



# Results

- Threads
  - Erosion
  - Pollution
  - Dumping
  - Construction



# Results

- public awareness
- follow up actions



FOTO: FRANK PUSCH

FORSCHUNG ZUM ANFASSEN

## Die kleine Küstenwache

V erfärbt sich der Papierstreifen? An der Schleswig-Holsteinischen Nordseeküste untersucht eine Gruppe von Kindern unter Anleitung des Nationalpark-Rangers Rolf Suppe das Meerwasser auf seinen Nitratgehalt. Diese Stickstoffverbindung führt vor allem im Sommer immer wieder zu Problemen: Planktische Algen nehmen massenhaft zu. Wenn sie absterben, entziehen sie dem Wasser Sauerstoff, die Fische geraten dadurch in Atemnot.

Die Kinder sind im Rahmen des Programms Coastwatch Europe unterwegs: Vom Wattforum in Tönning mit Fragebögen ausgestattet, untersuchen sie einen fünf Kilometer langen Küstenabschnitt auf seinen „Gesundheitszustand“. Schulklassen, Urlauber, Seniorengruppen beteiligen sich an diesem seit 1991 in 22 Ländern Europas laufenden Projekt, werden mit wissenschaftlichen Methoden bekannt gemacht und erleben direkt, wie es der Umwelt geht.