# BeachExplorer.org Visitors become Citizen Scientists





Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit







WSD 29.08.2019 / Rainer Borcherding



# Basic data about BeachExplorer

- Northsea: Den Helder Malmö (+ BalticExplorer)
- Determination key for 2000+ object
- Project start 2012, online 2014
- 27,000 observation records
- 2,500 registered users
- 500 (100) app-downloads / month, 60 iOS users / day
- Data via naturgucker.de to GBIF.org

Aim: Environmental education + nature observation







## Quality management

- Score system: 1 to 10 points for every record
- 3 performance levels for users (500 / 2000 points)
- 3 difficulty levels for species
- Clearance "box" for doubtful reports
- Goal: 98 % correct determinations







# Data quality survey (09/18) 3,000 out of 24,000 data sets checked 50 % of all records come with pictures Picture quota varies between species (20)

24 out of 1429 pictures not identifyable (1,7 %)
84 out of 1429 records misidentified (5,9 %)







## **Pictures in BeachExplorer**

Rarely taken: common bivalves

Often taken: pretty/ strange/ scary stuff

- Very often taken: Amber (73 %)

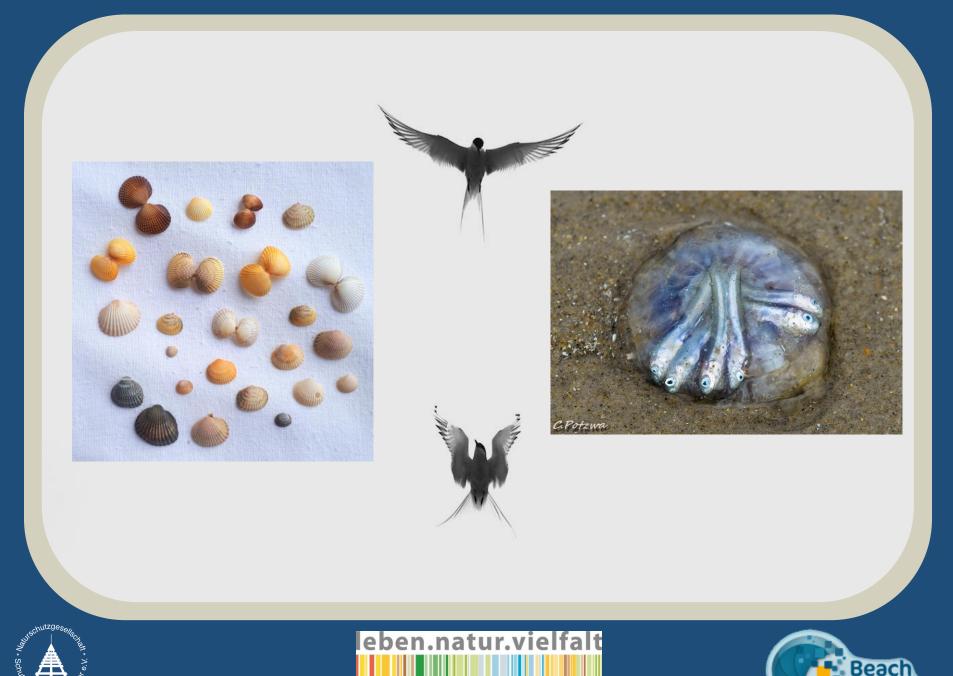
- Really bad pictures are really rare (1,6 %)











das Bundesprogramm



## Species identification performance

50 % without pics: common stuff or advanced users

- Most common species: 7 out of 10 with <4 % fails

- Mistakes often in "medium common" species

Rare species not free of mistakes after clearance







### Top: rare medium sized species

Cryst.: new in D Ling: new in D Manila: new in D Tellin: new in D

new Northsea Pearlside 2x Lesser Octo 9 x Black lug 18 x
Northsea warming visible (Tuerkay 2015)
Effects of winter storms recognizable
First records & spread of neobiota







#### **Perspectives**

- Anonymous records -> in use
- Digital class room -> ready for use
- Newsletter, user contact -> missing
- LakeExplorer for freshwater -> coming

#### - Promotion of digital nature studies (App framework)







#### Please spread the word:

# www.beachexplorer.org www.balticexplorer.org







## BMU / BfN



Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit







Lighthouse Foundation

LIGHTHOUSE FOUNDATION
 STIFTUNG FÜR DIE MEERE UND OZEANE

772 :

#### Umweltministerium SH (MELUND)









# Enjoy beachcombing!

# www.beachexplorer.org www.balticexplorer.org





