

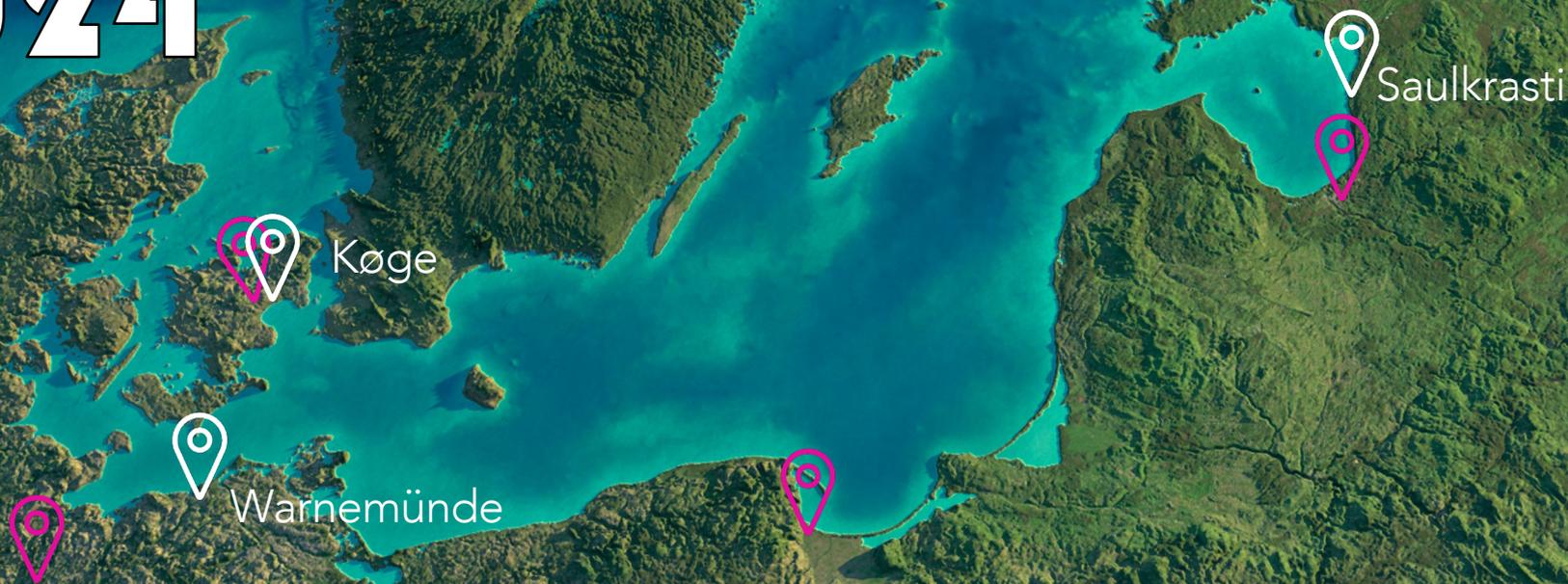
**Interreg**  
Baltic Sea Region



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# BALTIC SEA TOURISM FORUM 2024



Eine Einrichtung des Helmholtz-Zentrums Hereon



hereon



Gdański  
Ośrodek Sportu



David Cabana  
Climate Service Center Germany



# Climate Threatens Beach and Coastal Tourism



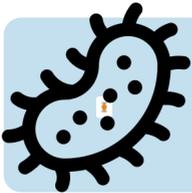
Coastal areas becoming less attractive



Reduction of biodiversity and degradation of the landscape



Decreased tourist satisfaction related to human comfort



Increase emerging infectious diseases



Change in the quality of the infrastructures and facilities



The availability and/or cleanliness of domestic water

2

# ■ Coastal tourism, gaps to climate change adaptation

Limited integration of climate-related information into decision-making processes within the beach and coastal tourism industry.

1. Lack of ad-hoc, easy to access information

2. Low level of awareness amongst the key stakeholders

3. Lack of sense of urgency

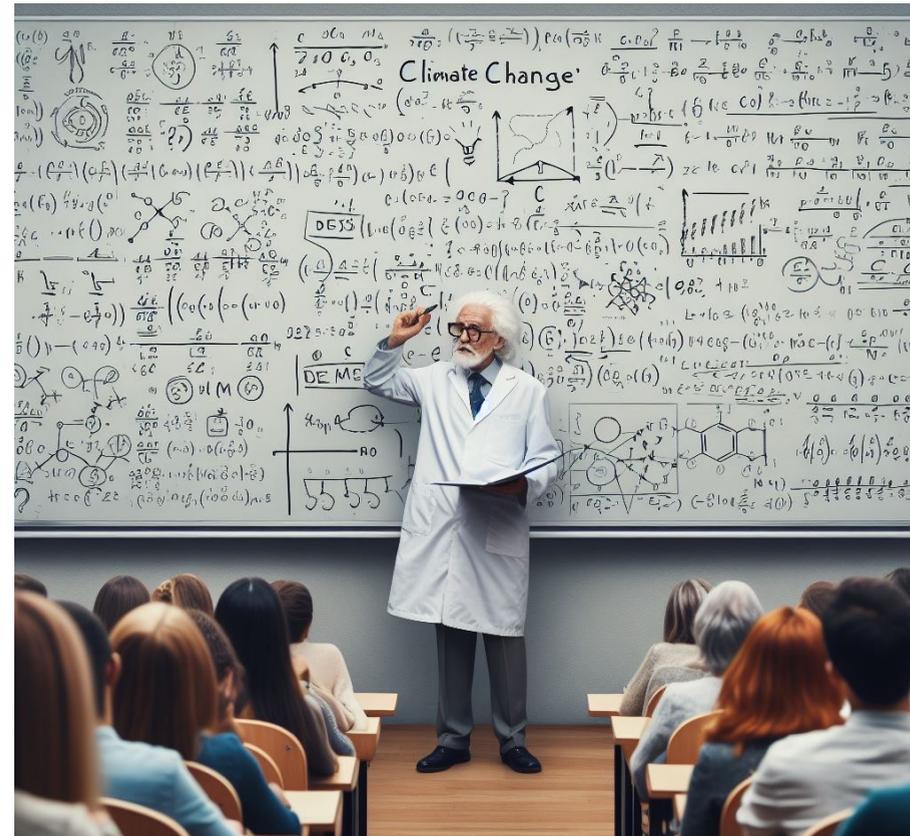
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(Damm et al., 2020).





INTERGOVERNMENTAL PANEL ON  
climate change



United Nations  
Climate Change




European  
Environment  
Agency



# Storms are occurring more often.

15 Aktualu Lietuva Pasaulis Kriminalai Oras Komantarai Tribūna Istorija Švietimas

Ir vasarą naujienų netrūksta. 3 mėn. prenumerata vos už 1,49 Eur! Išbandyti

## Vis grėsmingesnė Baltijos jūra – audros dažniau kyla dėl globalinio atšilimo ir klimato kaitos

Mokslininkai įspėja, kad dėl klimato pokyčių audros Baltijos jūroje bus vis stipresnės ir kils dažniau. O tai, kaip rašo wyborcza.pl, kelia grėsmę pajūrio gyventojams, kurie turėtų tam ruoštis.



ERR kasutab oma veebilehtedel http küpsiseid. Kasutamist jätkates nõustute kõikide ERR-i veebilehtede küpsiste seadetega

ERR.ee UUDISED TV RAADIO LASTELE JUPITER

novator UUDISED AASTA KOOL TEADUSLUULE MEEDIATAIP ERIP

## Eesti kalad pistavad kliimamuutuse tuules rinda ka rändetakistuste ja ülepuügiga

LOODUS  
Jürgen Karvak (TÜ)  
20.05.2021 09:27



Vasalemma jõgi. Autor/allikas: Jürgen Karvak



# Climate change is disrupting fish migration.

# Will the Baltic Sea be like the Adriatic?



Przejdź na WP

Zaneta Gotowska-Wróblewska | 12\_02\_2024 20.10

## Konsekwencja zmian klimatu. "Lód będzie zjawiskiem coraz rzadszym"

Krajobraz po sztormie. Orzechowo Morskie koło Ustki | Źródło

- Jeżeli wzrost temperatury byłby związany z niekontrolowaną emisją gazów cieplarnianych, to Bałtyk będzie morzem wolnym od lodu. To oznacza, że powinna zniknąć foka szara, która potrzebuje lodu do rozmnażania się - mówi w rozmowie z WP prof. Mirosław Miętus, zaznaczając, że konsekwencje widoczne są już teraz.

78 393 426

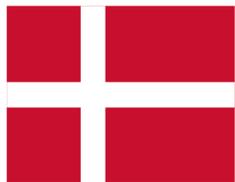


Nyheder Sport Vejr TV

Seneste Vejrudsigt Radar Grøn strøm Badevandstemperatur Upload billede/video

## Sådan kan klimaforandringerne ændre vejret i Danmark

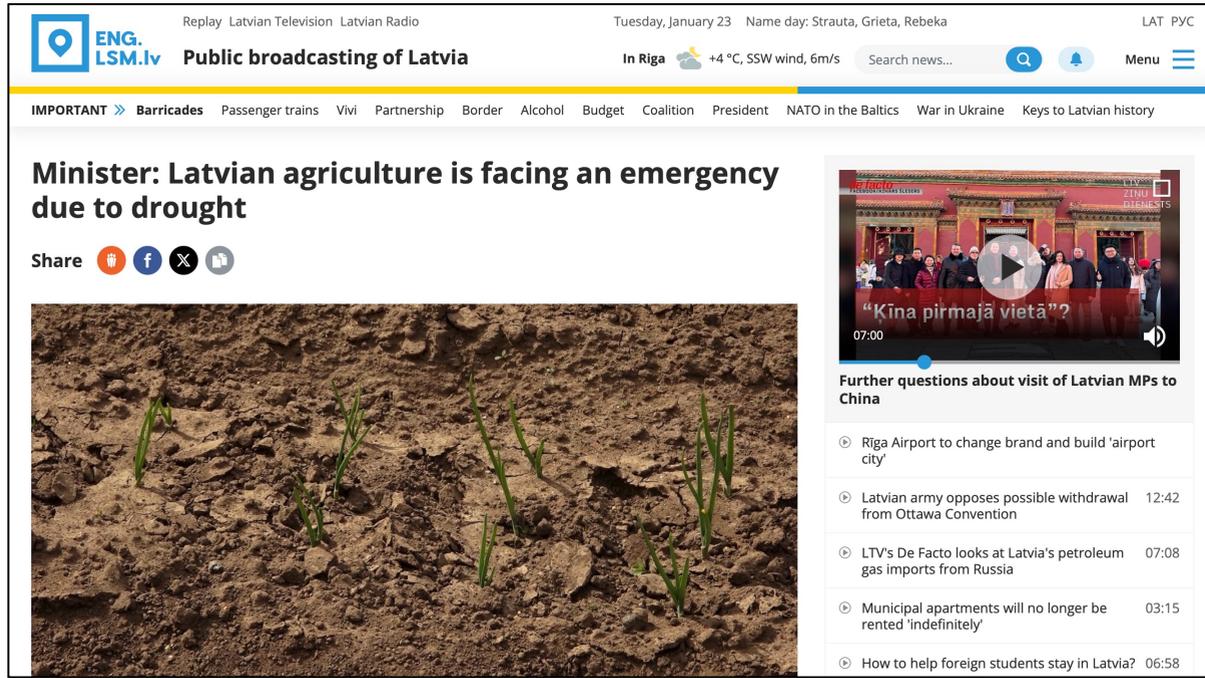
9. aug 2021 kl. 16.25 [Del artikel](#)



This is how climate change can **modify the weather** in Denmark.



# Latvian agriculture is facing emergency due to **drought**.



Replay Latvian Television Latvian Radio Tuesday, January 23 Name day: Strauta, Grieta, Rebeka LAT PYC

ENG. LSM.lv Public broadcasting of Latvia In Riga +4 °C, SSW wind, 6m/s Search news... Menu

IMPORTANT » Barricades Passenger trains Vivi Partnership Border Alcohol Budget Coalition President NATO in the Baltics War in Ukraine Keys to Latvian history

## Minister: Latvian agriculture is facing an emergency due to drought

Share



Further questions about visit of Latvian MPs to China

- Riga Airport to change brand and build 'airport city'
- Latvian army opposes possible withdrawal from Ottawa Convention 12:42
- LTV's De Facto looks at Latvia's petroleum gas imports from Russia 07:08
- Municipal apartments will no longer be rented 'indefinitely' 03:15
- How to help foreign students stay in Latvia? 06:58



forskning.se Sök Meny



6 december 2023

## Klimatförändringar kan gynna bakterier i sjöar och hav

Bakterier Klimatet

Artikel från Umeå universitet

I Östersjön och insjöar finns en mängd bakterier som kan orsaka sjukdomar. I takt med stigande temperaturer finns en risk att de blir ännu fler, särskilt i områden med brunare



# Climate change may favour **bacteria** in lakes and oceans.



# Baltic Sea: **plankton decrease, and the sea becomes less salty**

**Turun Sanomat**

Paikalliset Kotimaa Urheilu Kulttuuri Uusimmat Näköislehti ©Katso Kirjautu → Tilaa T

## Näin ilmastonmuutos vaikuttaa Itämereen: planktoni vähenee ja meri makeutuu



Menü **TAGESSPIEGEL** Anmelden ABO



### Temperaturen wie selten zuvor Ostsee erwärmt sich doppelt so schnell wie Nordsee

Der Klimawandel macht sich auch bei Nord- und Ostsee bemerkbar. Das bestätigen die Daten für das zurückliegende Jahr. Bei der Geschwindigkeit der Erwärmung gibt es Unterschiede.

11.01.2024, 15:53 Uhr



**Baltic Sea is warming up** twice as fast as the North Sea.



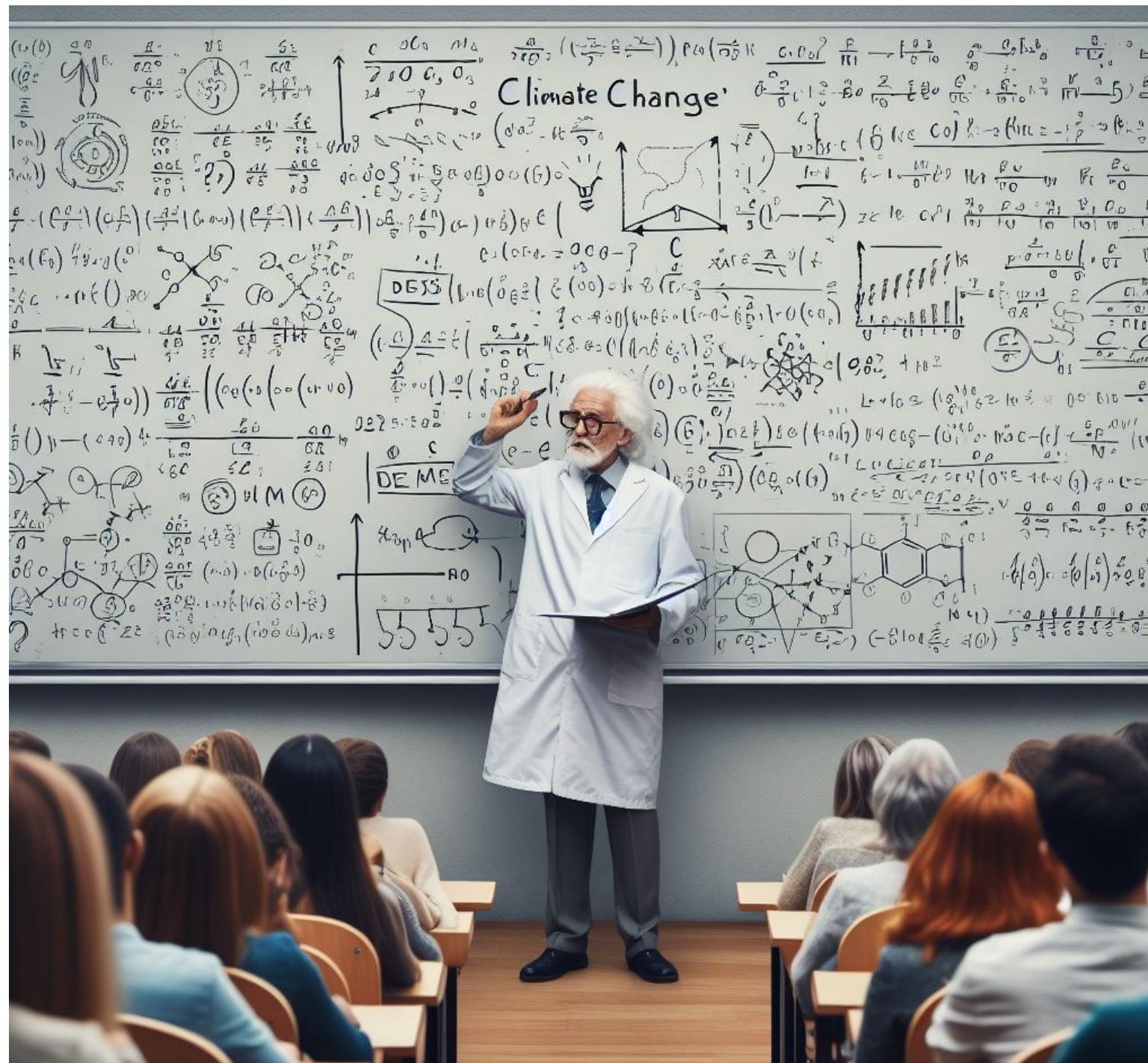
CONFUSION

CLIMATE CHINTION

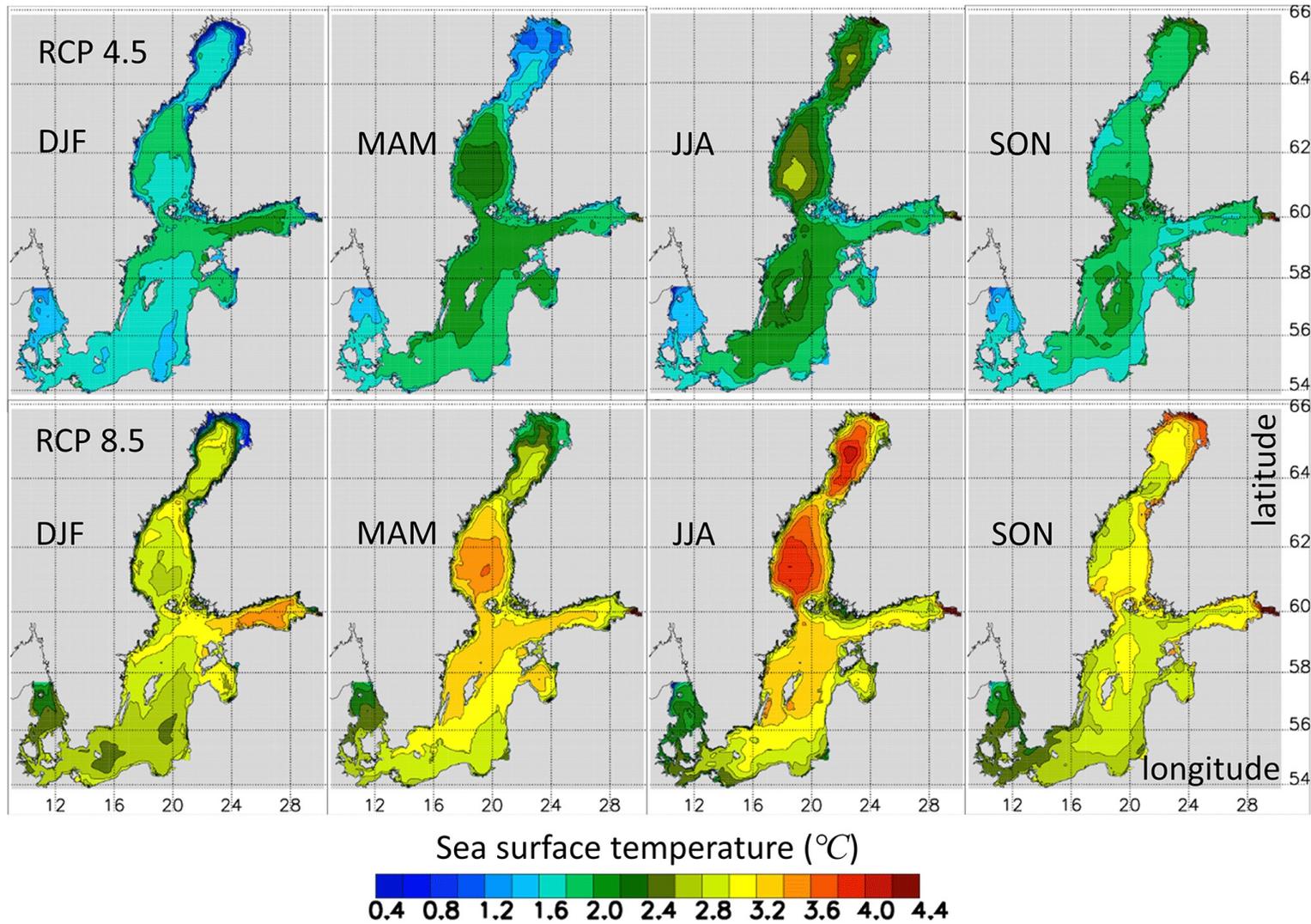
OIVOMIUNING  
INFOUUIPE  
IVACATION

SE

UC



■ The Baltic Sea is expected to see **warmer waters, less ice cover, and more frequent heat waves** due to climate change.



Mean Sea Surface Temperature changes (in °C) between 1976–2005 and 2069–2098 under RCP4.5 and RCP8.5

# Sea Surface Temperature and *Vibrio* infections

nature climate change

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nature > nature climate change > letters > article

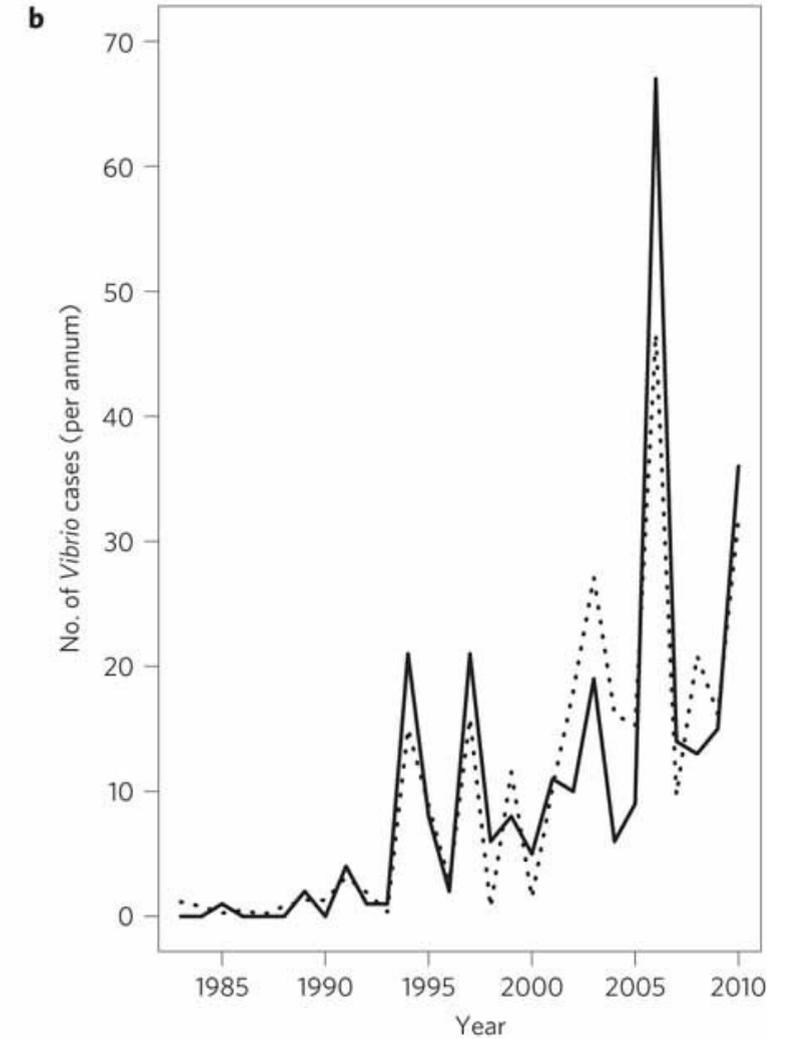
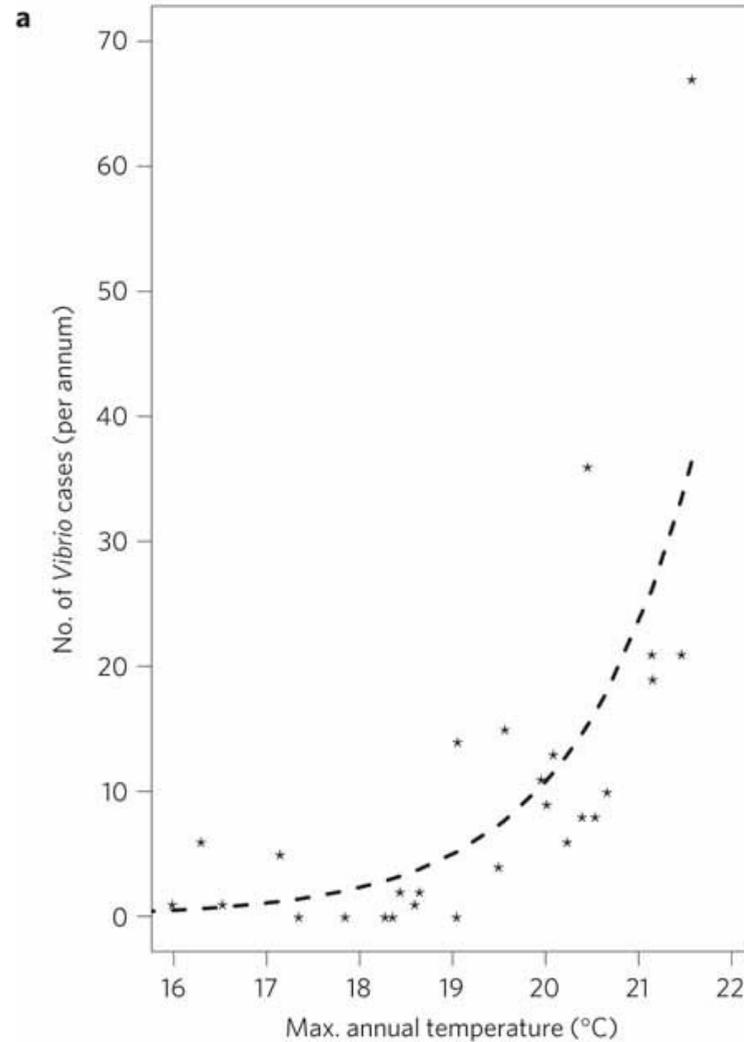
Letter | Published: 22 July 2012

**Emerging *Vibrio* risk at high latitudes in response to ocean warming**

[Craig Baker-Austin](#) , [Joaquin A. Trinanes](#), [Nick G. H. Taylor](#), [Rachel Hartnell](#), [Anja Siitonen](#) & [Jaime Martinez-Urtaza](#)

[Nature Climate Change](#) **3**, 73–77 (2013) | [Cite this article](#)

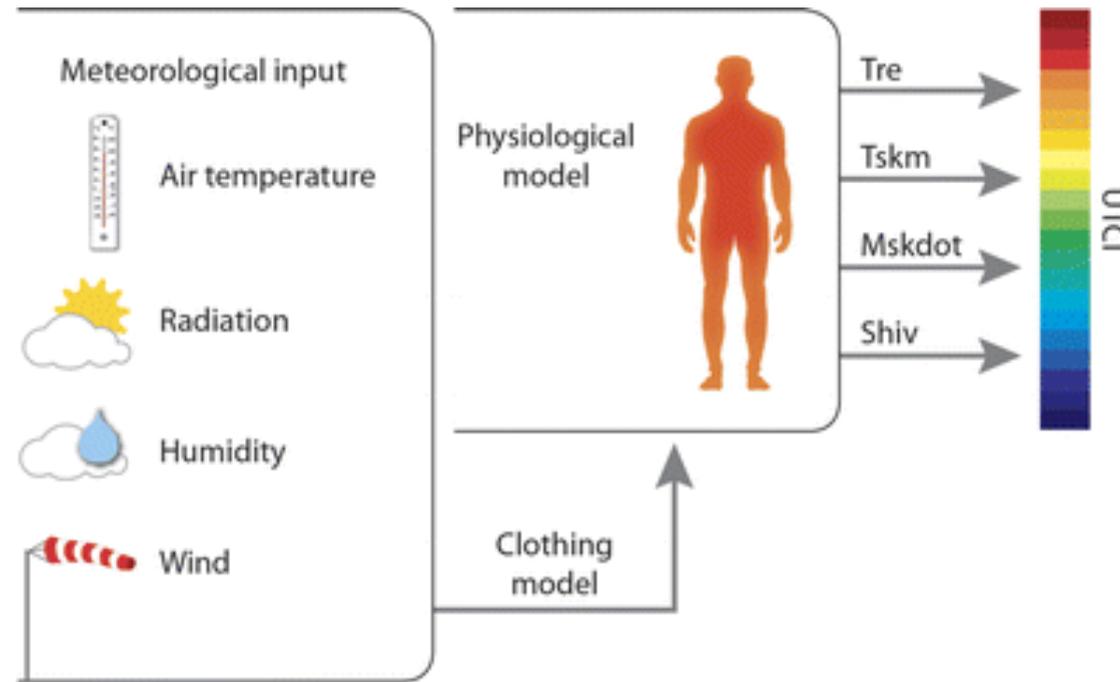
6412 Accesses | 376 Citations | 197 Altmetric | [Metrics](#)



The relationship between *Vibrio* infections reported around the Baltic Sea area and maximum annual SST. Stars show observed data, dashed line shows GLM model predictions (based on the influence of SST alone). b, Time series of Baltic Sea *Vibrio* cases. Solid line shows observed cases and dotted line shows GLM model predictions based on the influence of maximum SST and time.

■ The Baltic Sea Region is expected **increase heat stress and prolong the summer season.**

UTCI (°C)	Stress Category
> 46	Extreme heat stress
38 – 46	Very strong heat stress
32 – 38	Strong heat stress
26 – 32	Moderate heat stress
9 – 26	No thermal stress
0 – 9	Slight cold stress
-13 – 0	Moderate cold stress
-27 – -13	Strong cold stress
-40 – -27	Very strong cold stress
< -40	Extreme cold stress

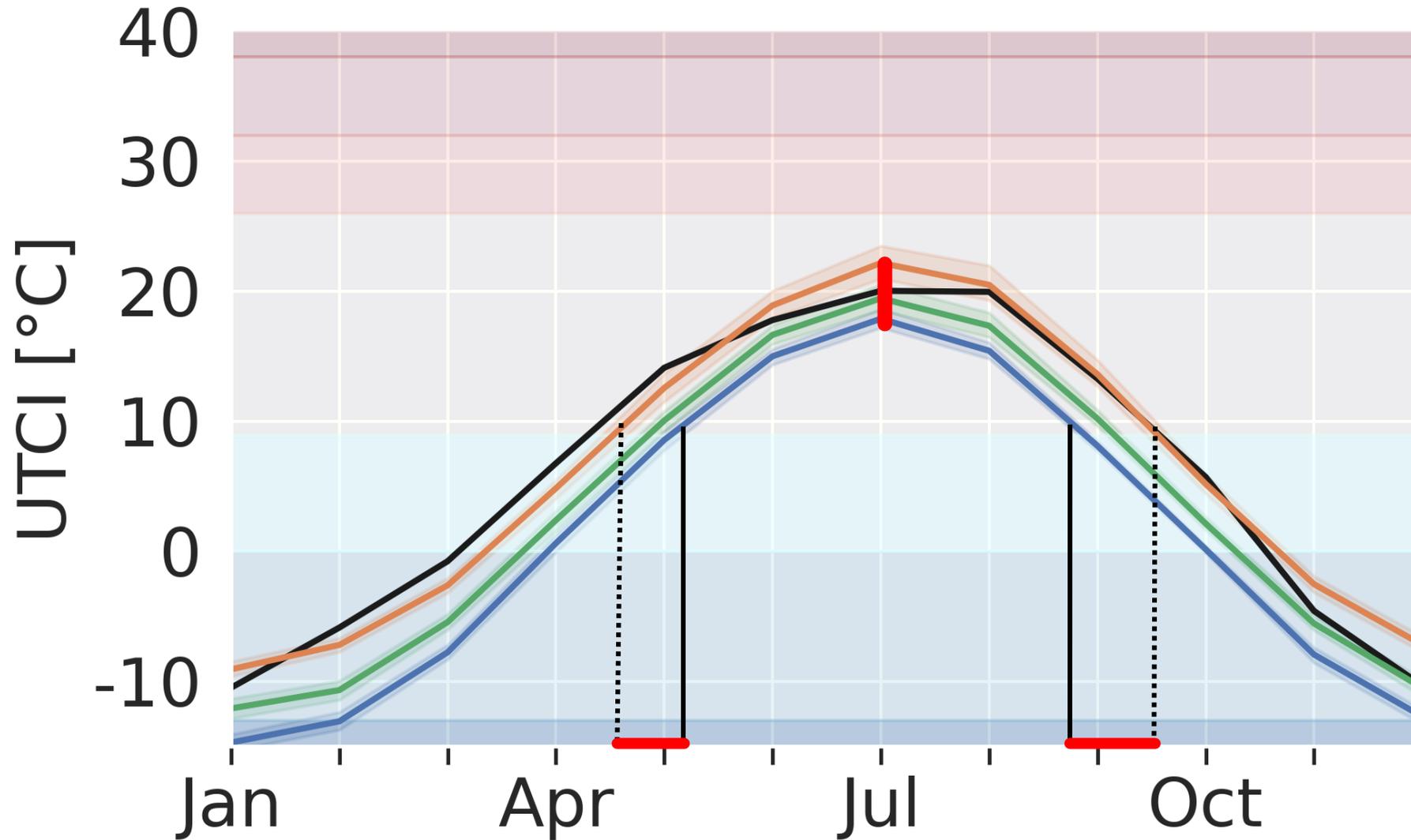



Climate Services
Volume 34, April 2024, 100447


Changes in universal thermal climate index from regional climate model projections over European beaches

[Christine Nam](#), [Ludwig Lierhammer](#), [Lars Bunttemeyer](#), [Prosper Evadzi](#), [David Cabano](#), [Louis Celliers](#)  
[Show more](#)

# UTCI calculation for **Rostock** - Mecklenburg-Vorpommern **Germany**



Time Period	
—	1971 – 2000 ERA5
—	1971 – 2000 Historic
—	2021 – 2050 RCP8.5
—	2071 – 2100 RCP8.5

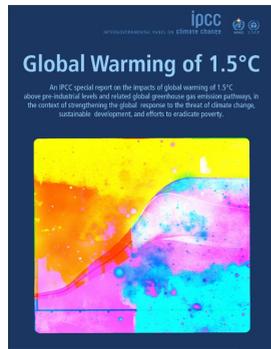
Universal Thermal Climate Index

# Climate Projections and Risks

## IPCC's Sixth Assessment Report (AR6)



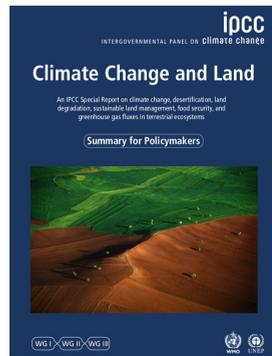
WGI, WGII, WGIII



October 2018

SR1.5

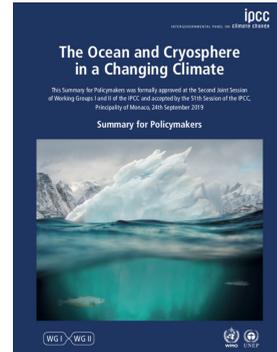
WGI, WGII, WGIII



August 2019

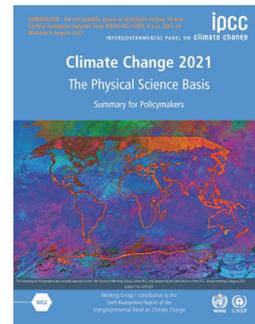
SRCCL

WGI & WGII



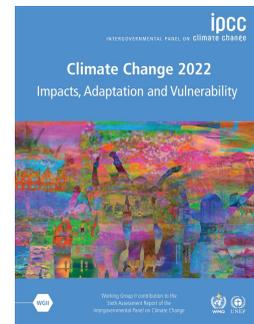
September 2019

SROCC



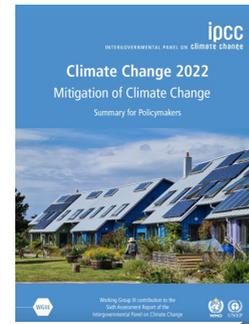
August 2021

WGI Report



February 2022

WGII Report



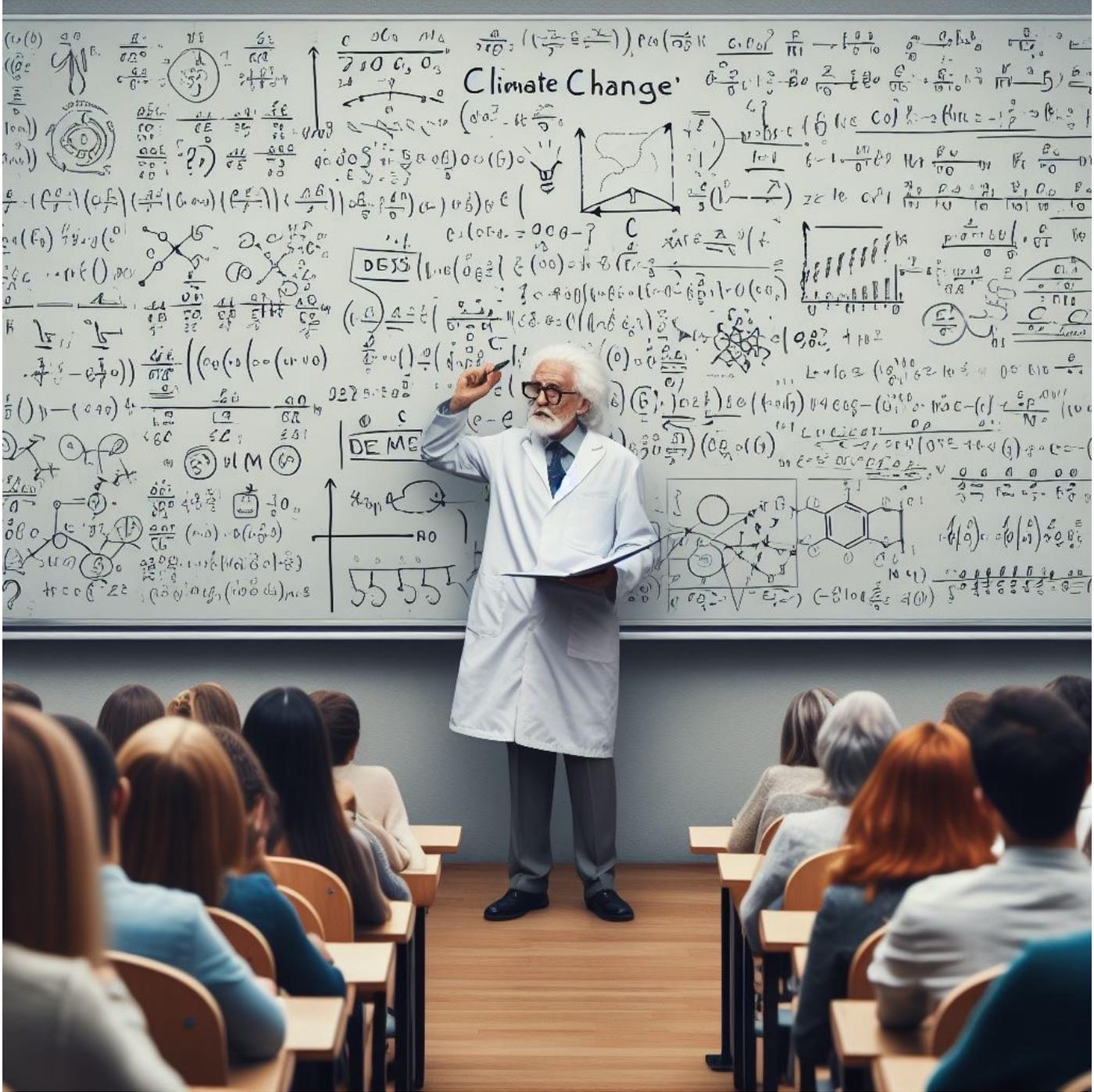
April 2022

WGIII Report

September 2022

- Synthesis Report





The information on climate change is all over the place and not clear to the decision-maker.

# ■ Creating a space and opportunity for **conversation and planning**

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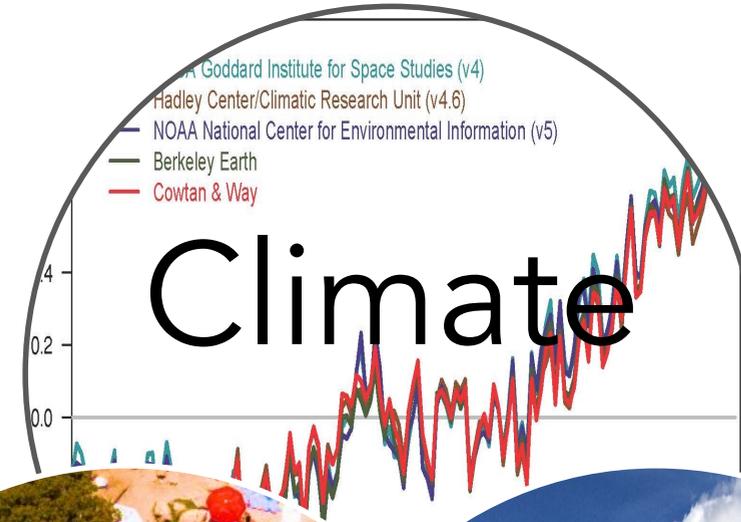


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# Warnemünde



# Køge Bay



■ Saulkrasti





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Friluftsrådet



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Ośrodek Sportu



Saulkrasti



FEE

LATVIA



Warnemünde



Køge



Saulkrasti



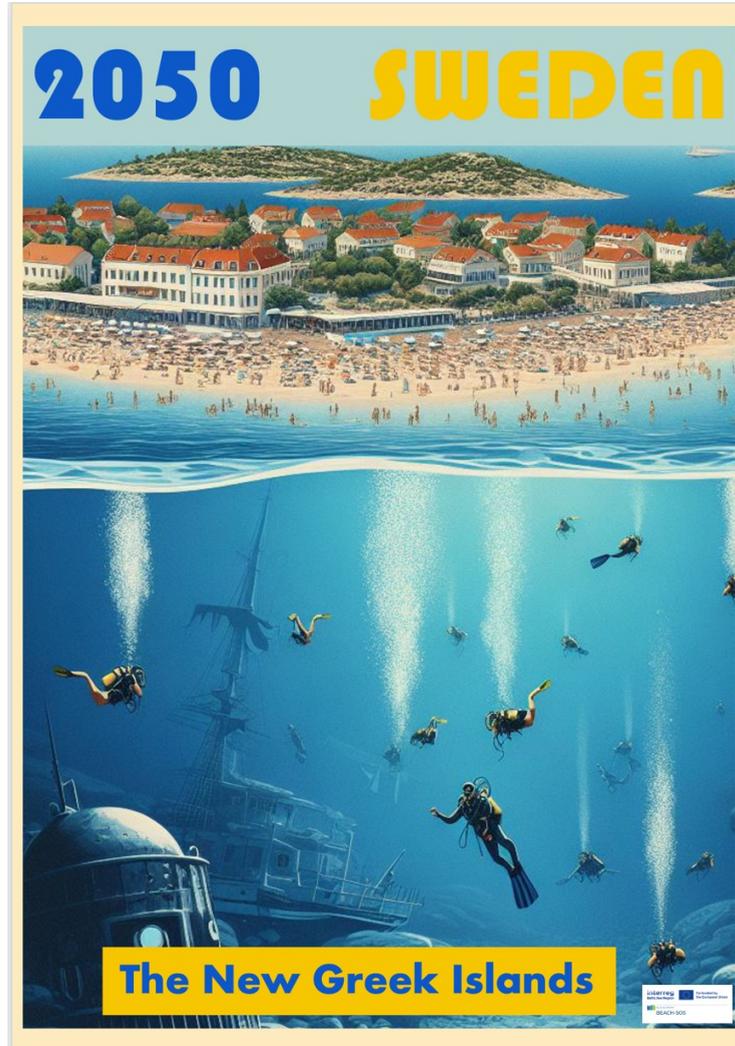
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David Cabana

Climate Service Center Germany



# 2050 the **BALTIC SEA** is **THE NEW MEDITERRANEAN**

