

Nature & Climate Change

by

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1. Impacts of CC on Nature in Ireland
2. Impacts of our responses to climate change
3. Nature based solutions
4. Where to from here?

**Climate change is having enormous impacts on species and habitats,
although the primary driver of biodiversity loss is NOT climate
change, it is habitat loss.**

Budburst in spring





Greenland White Fronted Geese



Kitiwake



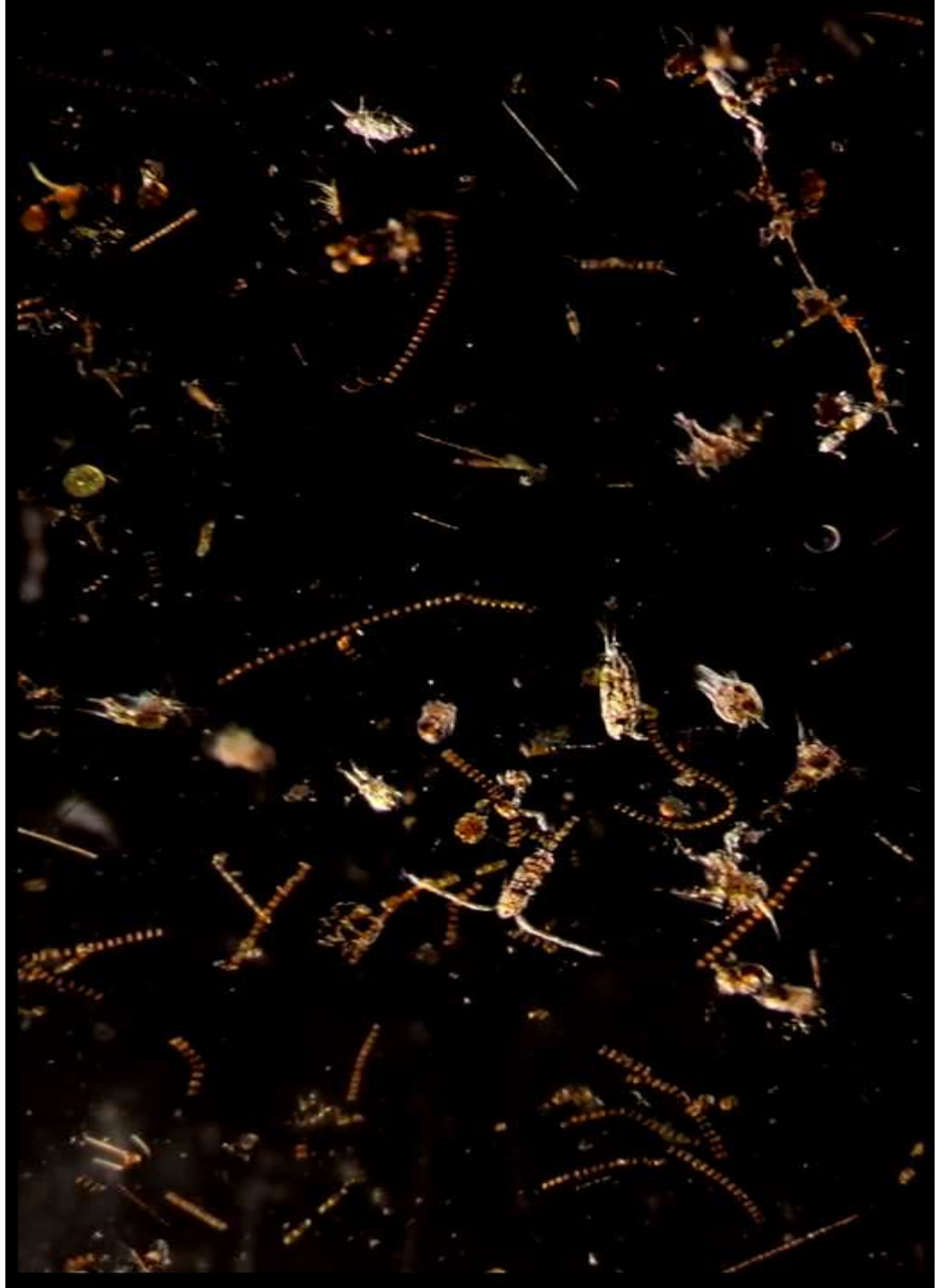
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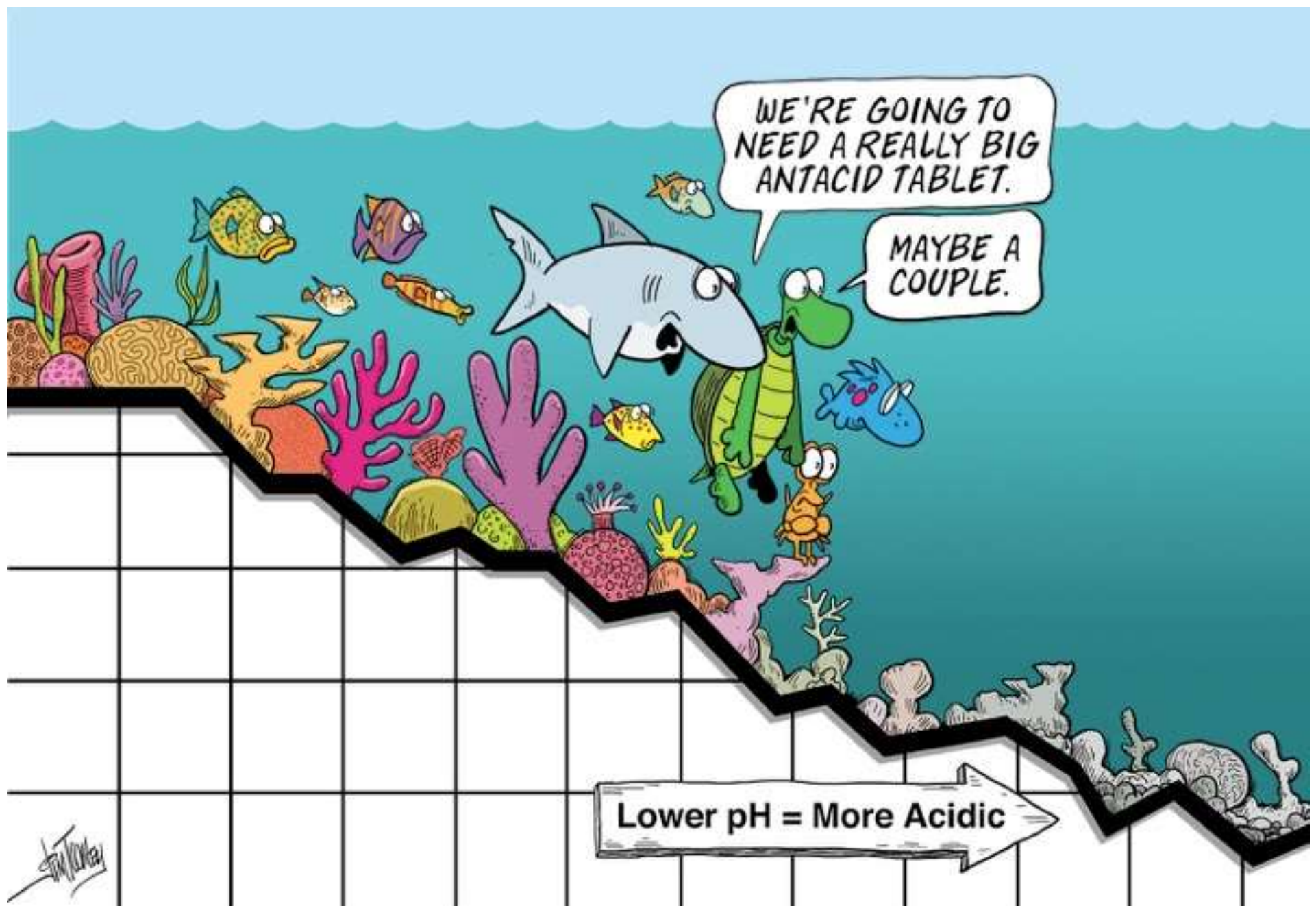


Arctic tern



Sundew





So To reduce the pressure on species and habitats, we need to tackle
climate change

BUT

Equally important is stopping further habitat loss (prevent harm),
strengthening protection for biodiversity in designated areas & in the wider
countryside,
& restoring ecosystems to good health.

**Often there are co-benefits between healthy habitats and fighting
climate change**

Nature based solutions to climate change

AND

Benefits to climate action from nature conservation

Peat Bogs

Peatlands are the most space-effective C stores of all terrestrial ecosystems

Carbon store:

- store 1566 Million tonnes C

Carbon sink:

- Sequester 60,000 – 140,000 tonnes CO₂ annually

But..... In Ireland now.... peat soils release > 2,500,000 tonnes C in to the atmosphere *each year*



Peat Bogs & Water

- storage reservoir: rainfall absorbed and released at slower rate than surface flow
- Slow surface flow
- increase infiltration of rainfall to groundwater
- Filter water – degraded peat in water difficult to remove





Bogs & Biodiversity





Factors influencing fluvial flooding

- Developments in floodplains
- Ground permeability (urban paving)
- Agricultural land management (drainage, soil compaction, dredging)
- Straightening of river channels
- Tree cover / roughness of vegetation cover
- Presence of wetlands

Natural Flood Management

aims to restore & enhance catchment processes that have been affected by human intervention

- Woodland planting
- Conservation & creation of wetlands
- Agricultural land management
- Floodplain rehabilitation
- opening up land to flooding (strategic)
- Bunds and damns in upper catchment
- Sustainable Urban Drainage Systems (SUDS)
- Managed coastal realignment

Natural Flood Management Handbook



Report by Anja Murray for



Natural Flood Management

Adopting ecosystem approaches to managing flood risk

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Respecting Biodiversity:

The legal Framework

- The **Birds Directive** (**SPAs**)
- The **Habitats Directive** (**SACs**)
- Environmental Impact Assessment (**EIA**) Regulations & Strategic Environmental Assessment (**SEA**)
- Water Framework Directive (**WFD**)



Hope!



community action

better information on
conservation trends

Mounting pressure on
government to act

Strengthen policy at Local
Authority Level

