

World Sailing Training Series

21 February 2024

BIOSECURITY



Institutional partners



International
Olympic
Committee



Supported by



Agenda

1. IUCN – intro & ocean
2. Biosecurity / Invasive Alien Species
3. Sports for Nature
4. Q&A

1. IUCN – intro & ocean

International Union for Conservation of Nature

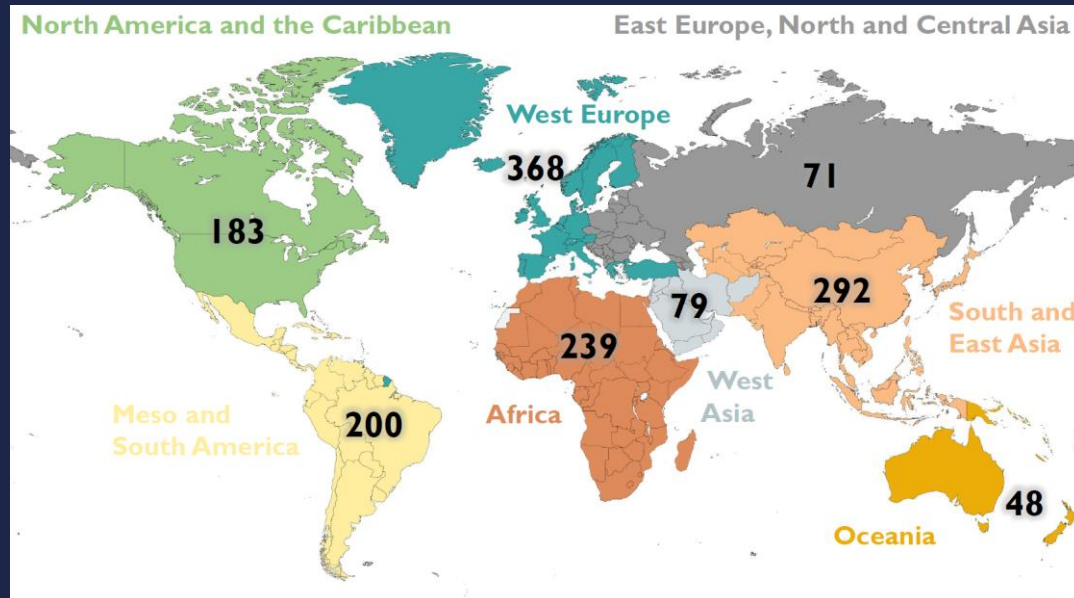
IUCN = World's largest and most diverse environmental network with a global presence.

**75
Years**

**1 400 +
Members**

**15 000 +
Experts**

**160 +
Countries**



Vision

A just world that
values and conserves
nature

IUCN – how

DATA



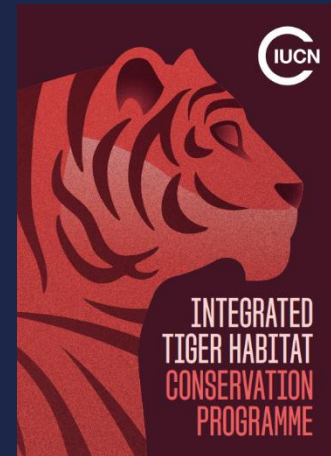
CONVENE



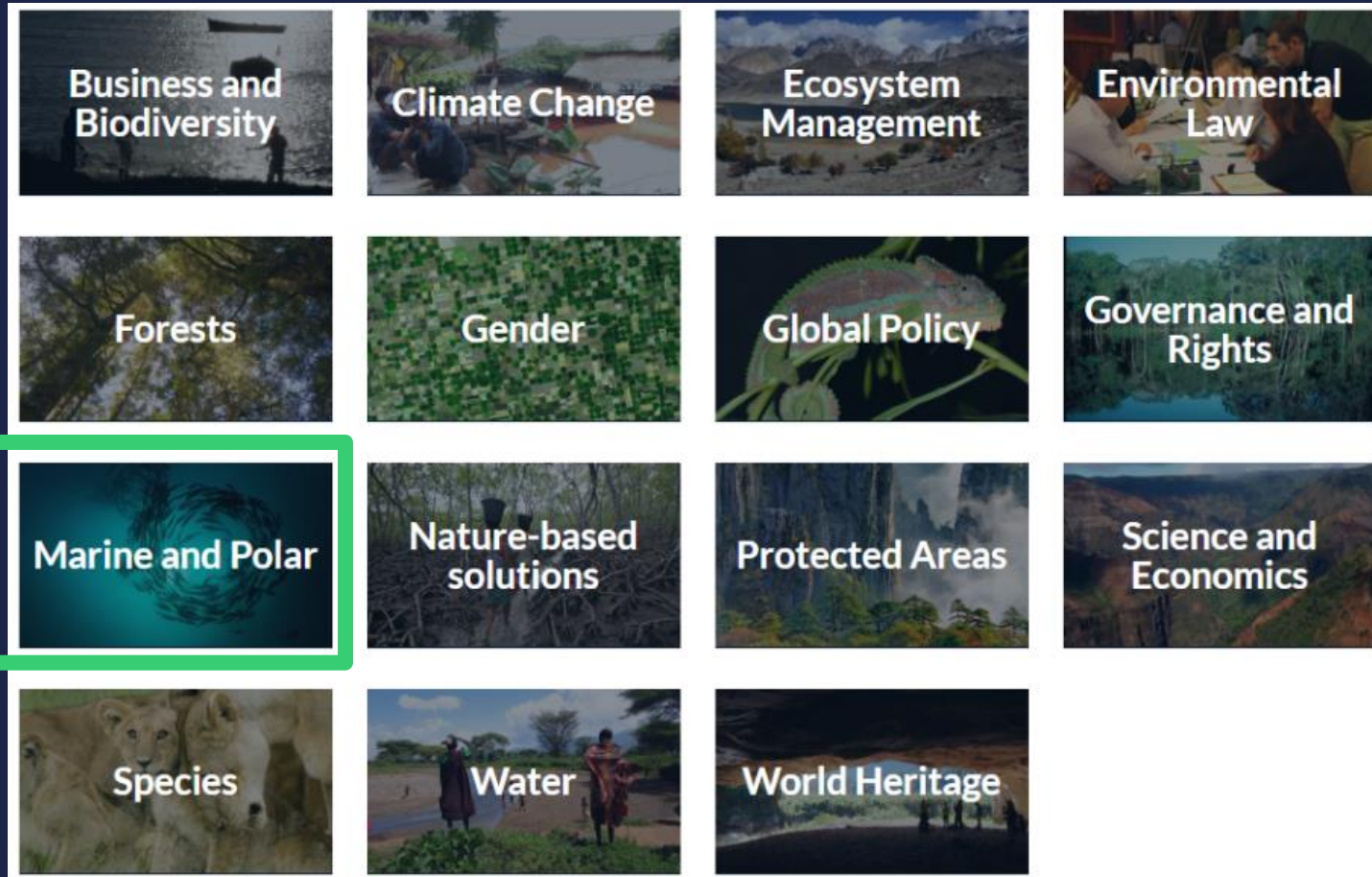
ANALYSIS



ACTION



IUCN – which areas



- Since 2022, secretariat of the Initiative.
- Provide guidance and expertise on nature conservation
- Connect signatories with this network and help unlock the cooperation potential between sport and conservation sector.

IUCN – ocean team



**Climate change and the ocean /
Blue Carbon &
Sustainable finance**



**Pollution, including Marine
Plastics**



**Coastal Livelihoods and
Sustainable Development**

**Aquaculture, marine conservation and
coastal communities**



**International ocean governance
High Seas, Deep Seabed Mining**



**Marine Protected Areas
Conserving threatened species**



Polar activities

2. Biosecurity / Invasive Alien Species (IAS)

What are IAS?

Animals, plants, fungi or micro- organisms



What are IAS?

Animals, plants, fungi or micro- organisms



Introduced to areas outside natural range



What are IAS?

Animals, plants, fungi or micro- organisms

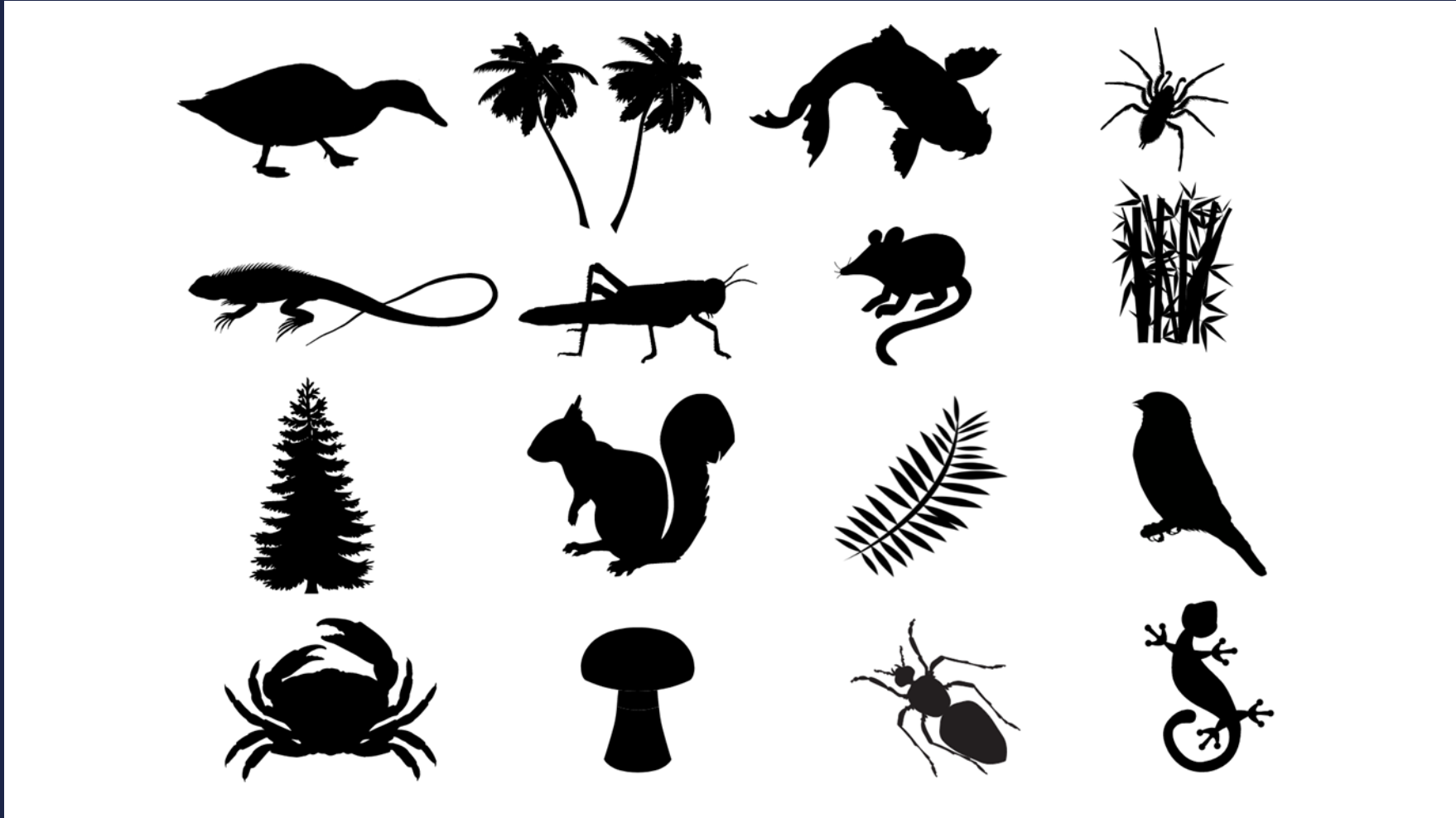


Introduced to areas outside natural range

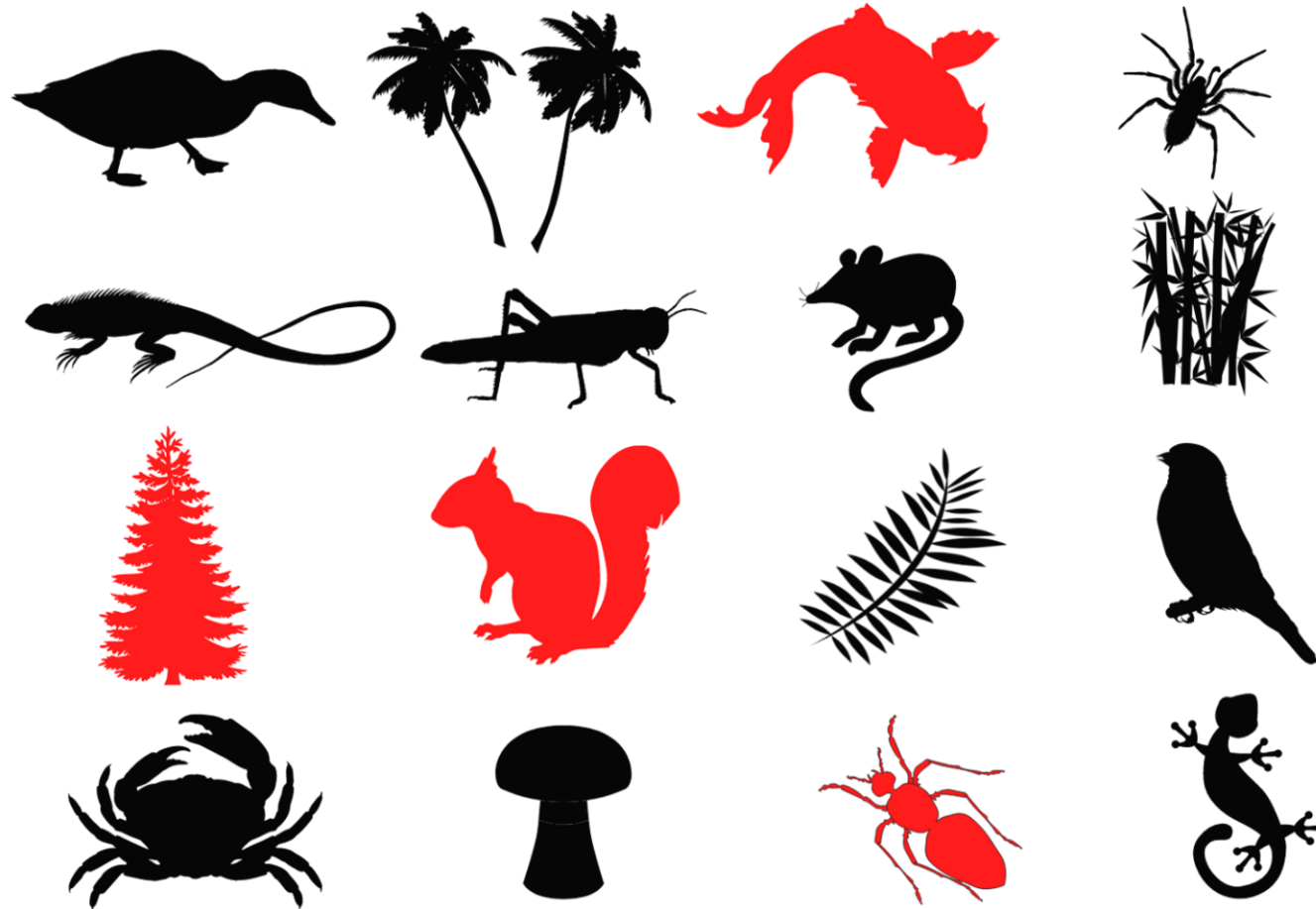
Negative impacts upon native biodiversity & related ecosystem services



Are all alien species invasive?



Are all alien species invasive?



5 – 20%

Pathways of introduction

The routes and mechanisms for the introduction and spread of a species to areas outside its natural range

- Intentional
- Unintentional

Release



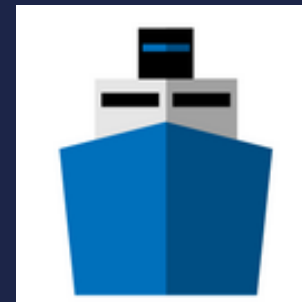
Escape



Contaminant



Stowaway



Corridors



Aquatic IAS



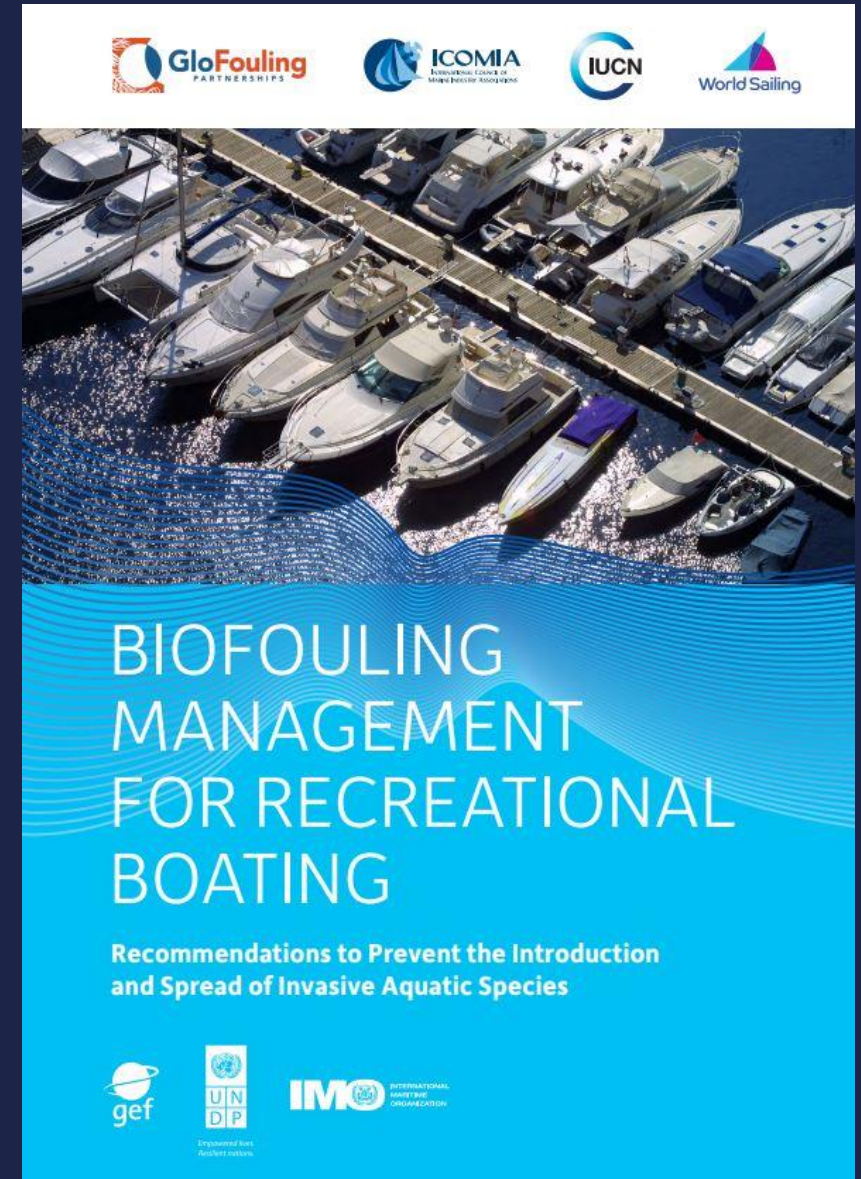
Impacts of aquatic IAS

- **Biofouling on vessels, aquaculture equipment and infrastructure**
- Impact commercial fishing operations
- Impact biodiversity and ecosystem structure
 - Predation/filter feeding on native species
 - Macroalgal coverage in coastal ecosystems

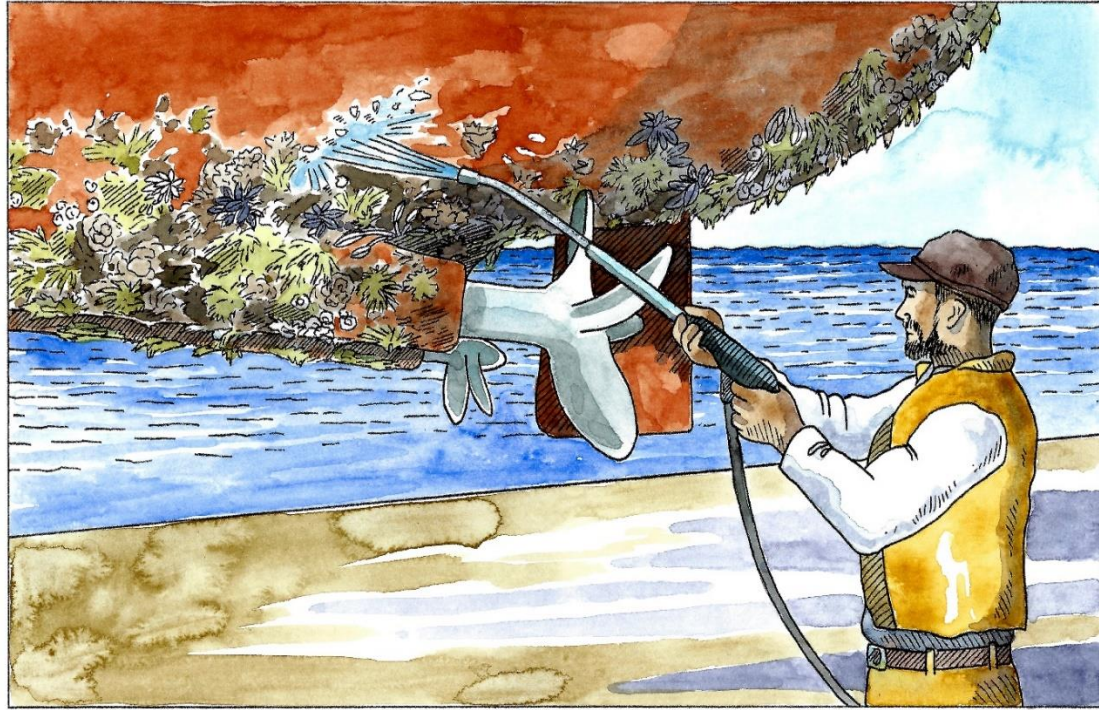


Sailing and IAS

- Movement of IAS across oceans is (generally) caused by cargo shipping
- Movement of IAS between harbours, marinas, anchorage, islands and inland waters often caused by recreational vessels
- See: Biofouling Management for Recreational Boating



Biosecurity



© European Commission, Artist: Massimiliano Lipperi

Best Practices

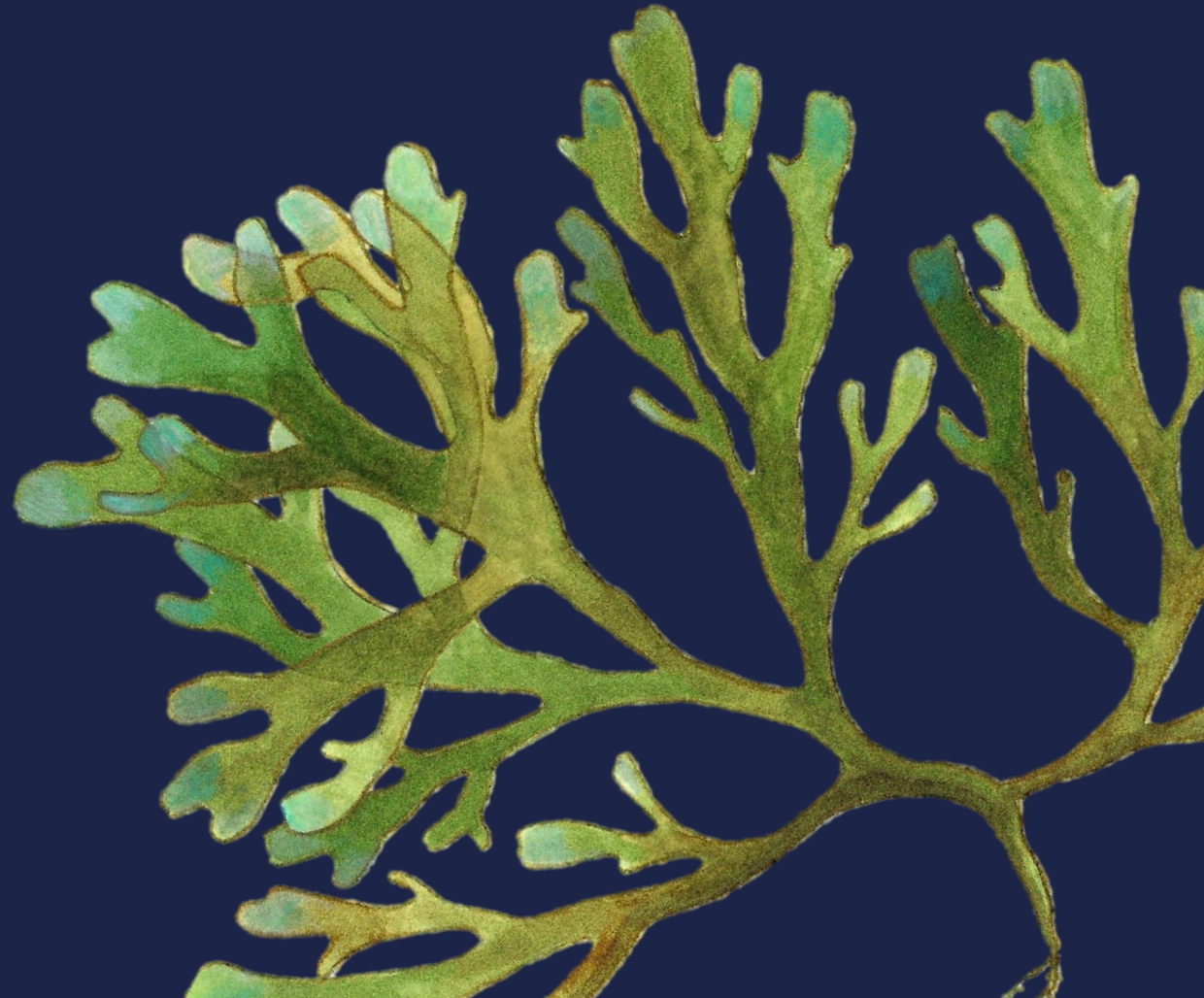


- Biofouling management practices can be broadly classified into:
 1. Proactive (or preventive) measures include applying biocidal anti-fouling coatings or silicon-based formulas that resist attachment of organisms, using ultrasound-based technologies, inspecting the hull and cleaning
 2. Reactive (or corrective) measures are focused on cleaning after the detection of biofouling
- A complete biofouling management strategy should include both proactive and reactive measures, which will vary according to the type of vessel, and how often or where it is used.
- Boaters and service providers using anti-fouling paints on their vessels should carefully check the information on their selected product(s) to ensure it is approved under applicable legislation and that is fit for purpose for where the boat will operate

Best Practices

1. Trailered boats
2. Local & coastal cruising
3. Long-distance cruising
4. Shore-based cleaning

*GEF-UNDP-IMO GloFouling Partnerships Project,
2022. Biofouling Management for Recreational
Boating: Recommendations to Prevent the
Introduction and Spread of Invasive Aquatic Species*



Trailered boats

- This includes ski & wake boats, fishing boats, dinghies, canoes, kayaks, windsurfers and SUPs
 - Make sure to include all equipment – wetsuits, fishing gear, etc.
1. **Check:** Most vessels have niche areas where water, and therefore species, can remain out of sight unless checked
 2. **Clean:** The best control is to ensure the vessel is free of all water (other than potable) and aquatic life
 3. **Dry:** Ensuring all parts of the vessel are completely dry will prevent the spread of live aquatic species

**Check
Clean
Dry**

Local & coastal cruising

**Avoid
Reduce
Contain**

- Includes boats of all sizes stored afloat for the season, in marinas, harbours or moorings
- 1. **Avoid:** The best control is to avoid the growth of biofouling through an effective anti-fouling system appropriate for the area and expected use of the boat
- 2. **Reduce:** Use the vessel regularly to reduce growth of biofouling
- 3. **Contain:** When cleaning the vessel, contain and safely dispose of any biofouling following applicable rules and regulations

Long-distance cruising

- Includes extended cruising and delivery trips between countries and continents, organised rallies and solo adventures
- Clean before leaving at:
 1. Initial departure from home port
 2. Each significant departure on the trip
- Plan and align the biofouling management system with the requirements of the destination and potential stopover points

Shore-based cleaning

- Ensure facilities have waste-water catchments for biofouling waste
- Fresh water, dry conditions and heat will all kill marine IAS. Avoid using chemical treatments. In freshwater use dry conditions and/or heat to neutralise potential species
- Prevent biofouling waste and paint particles from running-off into water
- Report unusual species to local authorities



Improve and share knowledge:

- Marina operators
- Public slipway wardens
- Harbour staff
- Management
- Regulators
- Boat owners
- Local clubs/associations

TRAILERED BOATS: HOW TO PREVENT THE SPREAD OF INVASIVE AQUATIC SPECIES



INCLUDES SKI AND WAKE BOATS, FISHING BOATS, SAILING DINGHIES, CANOES, KAYAKS, WINDSURFERS AND SUPS



After every trip:

- Clean and remove weed, biofouling
- Flush and drain engine
- Clean and rinse hull
- Clean, rinse and drain all lockers, bilges, ballast tanks (wake boats)
- Clean all hull and deck fittings



Check, Clean and Dry Equipment:

- Paddles, fishing rods, hollow masts and booms
- Sails, covers
- Wetsuits, spray tops, lifejackets, shoes
- Skis, boards
- Trailers



Fishing boats:

- Bait and live wells
- Nets and tackle

Aim to have containment around these activities to contain Invasive Aquatic Species

Keep the local species local, stop aquatic hitchhiking
Contain the spread of invasive species –
CHECK CLEAN DRY

LOCAL & COASTAL CRUISING: A GUIDE TO PREVENT THE SPREAD OF INVASIVE SPECIES



Pre-season – AVOID



Plan to avoid biofouling

Select anti-fouling system based on:

- Vessel
- Location/local waters
- Expected type of cruising
 - Fast/slow, hard/soft paints
 - Non-toxic anti-fouling system

Preparation

Apply anti-fouling coating according to manufacturers instructions:

- Hull preparation
- Number of paint coats
- Temperature

Records

- Retain records of biofouling management, what product used, when applied

During cruising season – REDUCE



Reduce

Use boat regularly to reduce build up of biofouling.

For longer trips, Clean before you leave:

- Lift and clean – contain and treat any biofouling

End of season – CONTAIN



Contain biofouling at end of season

Select lift-out facility with containment for wash-water

Stop the spread of invasive species
AVOID REDUCE CONTAIN



LONG DISTANCE CRUISING: A GUIDE TO PREVENT THE SPREAD OF INVASIVE AQUATIC SPECIES



Dreams and plans

- Decide which places you are visiting



Discovery

- Research local biosecurity requirements
- Consider impact of Invasive Aquatic Species on local environment, society and economy
- Determine suitable biofouling prevention and management system



Preparation

- Apply anti-fouling coating and/or install other biofouling prevention system
- Retain documentation of what anti-fouling system used, when applied



Set sail

- Enjoy the journey
- Monitor biofouling level

Stop-overs

- Monitor biofouling on hull and niche areas and determine if cleaning is necessary

Clean before you leave

- To prevent transfer of Invasive Aquatic Species

Stop aquatic hitchhikers
**CLEAN THE HULL
BEFORE YOU
LEAVE**

SHORE-BASED CLEANING: HOW TO PREVENT THE SPREAD OF INVASIVE AQUATIC SPECIES



Slipways, hoists

- Choose facility with wash water catchment for collection of biofouling waste



Contain and treat

- Scrapings and biofouling waste should be contained, for example by skirting the hull and using a tarpaulin. Wash down water should not be allowed to return into the environment unless filtered and treated
- Treat and dispose of biofouling waste in line with the rules established by the marina or port authority



- Report any unusual marine species to local authority, regulator



Improve and share knowledge:

- Marina operators
- Public slipway wardens
- Harbour staff
- Management
- Regulators
- Boat owners
- Local clubs/associations

Stop the spread
of invasive species
**CONTAIN
AND TREAT
BIOFOULING**



Learn local conditions

HAVE YOU SEEN THIS?



CARPET SEA-SQUIRT, *Didemnum vexillum*, is an invasive non-native marine animal thought to be originally from Japan. It is now known to be in the UK. It can compete with native species for space and can smother shellfish and other immobile species. Fouling of man-made hard structures such as vessel hulls, aquaculture equipment, docks, moorings and support structures is common. It can prove costly to marine industries and users.

WHAT DOES IT LOOK LIKE?

Carpet Sea Squirt can reproduce quickly and overwinter in a reduced form. It may look like some native species but can be identified by the following features:

- It can grow as thin flexible sheets or hang down in long rope like growths
- It has a uniform pale orange, cream or off-white colour
- The surface is leathery (not slimy) and has a veined or marbled appearance
- Has numerous pores on the surface but these close up out of water to produce white spots

WHAT SHOULD I DO IF I FIND IT?

1. **Note the location** to the nearest 100m or provide GPS coordinates
2. **Take a photograph** or detailed description
3. **CALL** Scotland's Environmental and Rural Services (SEARS)
Helpline on 0845 230 2050
4. **Assume that it is *D. vexillum*** and do not move any material, stock or boats from the site.

marine.scotland



Scottish Government
Riaghaltas na h-Alba
gov.scot

STOP

THE SPREAD
OF ZEBRA
MUSSELS

SCAIPÉADH
DIÚILICÍNÍ
RIABHACHA



Clean Your Boat!

- 1 Inspect
- 2 Drain
- 3 Hot Wash

or Dry Out Your Boat!

for 1 month if it has been in a Zebra Mussel infested water body

Glan Do Bhád!

- 1 Scrúdaigh
- 2 Taosc
- 3 Nigh le hUisce Te

nó Triomaigh Do Bhád!

ar feadh míosa mairfidh sé go raibh sé in alscobhach na bhfaoi diúilicíní riabhacha

www.alienspecies.ie

Responsible Organisms: Zebra Mussel Control Subsidies

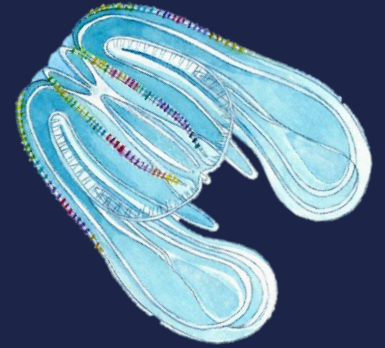
Responsible Organisms: Zebra Mussel Control Subsidies

Citizen Science and IAS

- Citizen science is a vital part of IAS surveillance
- Can provide large data sets over wide areas and long time periods
- Options include
 - Joining local projects
 - Using social media or apps e.g. iNaturalist



Further resources



IUCN Invasive Alien Species topic page: [Invasive Alien Species | IUCN](#)

Guidelines and posters on [Biofouling Management for Recreational Boating. Recommendations to Prevent the Introduction and Spread of Invasive Aquatic Species.](#)

Global invasive species database: <https://www.iucngisd.org/gisd/>

Global Register of Introduced and Invasive Species: <https://griis.org/>

3. Sports for Nature

About S4N Initiative

- Joint initiative of the International Union for Conservation of Nature, International Olympic Committee, United Nations Environment Programme, the Secretariat of the Convention on Biological Diversity and Sails of Change.
- Launched in December 2022.
- Created to tap into sports' enormous potential to take on ambitious goals and drive positive change.

MAIN AIM

To deliver transformative, nature positive action across sports by 2030 and beyond, enabling sports to champion nature and contribute to its protection and restoration.





With sport for sport

- Developed together with sport organisations.
- Co-creation at the core (e.g. Working Groups, webinars, workshops etc.)
- Platform for cooperation and mutual learning.
- 53 signatories – 4 sailing organisations.
- World Sailing – joined in 2022 at the launch of the Framework.

IOC

1 OCOG

21 IFs

6 NOCs

6 NFs

**7 clubs/
teams**

**5 leagues/
series**

4 events

2 other

S4N Signatories/February 2024

- International Olympic Committee
- AIUla Sports Club
- Barbados Olympic Association
- Brazil Olympic Committee
- Cebu Summit Basketball Club
- Costa Rica Olympic Committee
- **Doudous Sail**
- E1 Series
- Ecuador Surf Federation
- England Golf
- England Squash
- European Professional Club Rugby
- Extreme E
- Forest Green Rovers
- Hungarian Swimming Federation
- International Canoe Federation
- International Floorball Federation
- International Fistball Association
- International Orienteering Federation
- International Powerboating Union
- International Rafting Federation
- International Skating Union
- International Ski and Snowboard Federation
- International Table Tennis Federation
- International University Sports Federation
- International Waterski & Wakeboard Federation
- International Weightlifting Federation
- Israel Water Polo Association
- Jadir Taekwondo Association
- Mirpuri Foundation Sailing Trophy
- National Olympic Committee and Sports Confederation of Denmark
- Papua New Guinea Olympic Committee
- SAMBO International Federation
- San Cristobal Surf Club
- Spanish Olympic Committee
- **Spindrift**
- Surf Clube de Viana
- **The Ocean Race**
- The Organising Committee for the Olympic and Paralympic Games Paris 2024
- Ultra Swim 33.3
- Ultra Trail du Mont Blanc
- Union Cycliste Internationale
- VfL Wolfsburg
- Volleyball Ireland
- We Play Green
- World Rowing
- World Rugby
- **World Sailing**
- World Skate Federation
- World Squash Federation
- World Surf League
- World Taekwondo
- World Triathlon

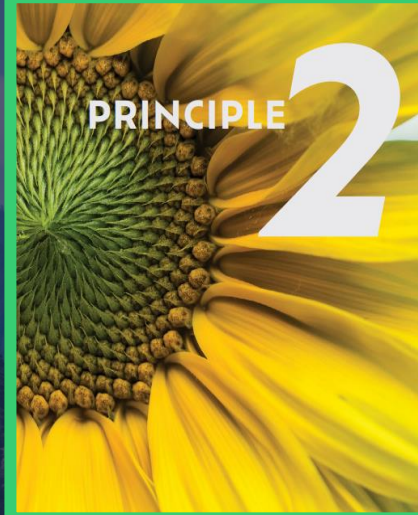
Direction of travel: S4N Principles



PRINCIPLE 1

PROTECT NATURE AND AVOID DAMAGE TO NATURAL HABITATS AND SPECIES

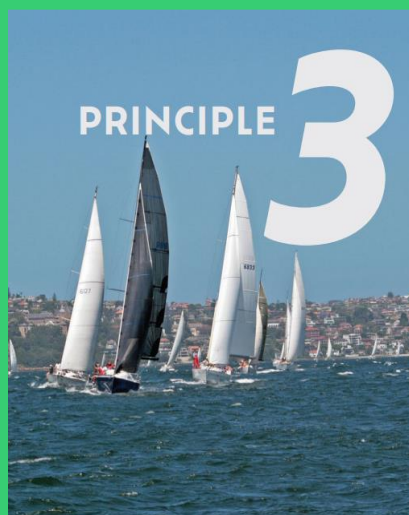
GOAL ►►► Our organisation is committed to protecting and avoiding damage to natural habitats and species, including respecting protected areas.



PRINCIPLE 2

RESTORE AND REGENERATE NATURE WHEREVER POSSIBLE

GOAL ►►► Our organisation takes positive action to restore and regenerate nature in and around the indoor and outdoor environments where we operate.



PRINCIPLE 3

UNDERSTAND AND REDUCE RISKS TO NATURE IN YOUR SUPPLY CHAINS

GOAL ►►► Our organisation will reduce risks to nature and enable opportunities to conserve and restore nature in our supply chains, linking wherever possible to climate goals.



PRINCIPLE 4

EDUCATE AND INSPIRE POSITIVE ACTION FOR NATURE ACROSS AND BEYOND SPORT

GOAL ►►► Our organisation will educate and inspire greater awareness and action for nature within our sport and our wider communities and stakeholders.

Global goals, local action



KUNMING MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

- Stop unsustainable **use, harvest, trade** of species 5
- Reduce **alien species** spread by at least 50% 6
- Reduce **pollution** risks, impacts by at least 50% 7
- Reduce **climate change** impacts 8

- Mainstream** biodiversity into all policy, practice 14
- Businesses** to monitor, disclose nature impacts 15
- Sustainable **consumption**, half food waste 16
- Phase out 'perverse' **subsidies**, increase **finance** 18
- Strengthen **capacity, participation, IPLC, women** 17 23



- 1 Biodiversity-inclusive **spatial** planning, «near-0 loss»
- 2 Effectively **restore** 30% of degraded nature
- 3 Effectively **conserve** 30% of lands and seas
- 4 Halt human-induced **extinctions**

- 9 Sustainably **manage and use** wild species
- 10 Sustainable **agri/aquaculture, fisheries, forestry**
- 11 Restore and enhance **nature's goods, services**
- 12 Increase area, quality of **urban** green/blue spaces
- 13 Fair sharing of benefits from **genetic resources**

Four overarching goals

- A. Halt loss, restore nature
- B. Use lands & seas sustainably
- C. Share benefits and services
- D. Mobilize necessary resources to be met by 2050

● 2030-goals
○ Not time specific

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Signatories' commitment



Commit to take measurable action for nature by signing the S4N Declaration.



Act upon the commitment: assess, make a plan, implement.



Report annually on progress.



Engage actively in the S4N community.



S4N partners supporting and enabling signatories to deliver on these commitments.



Why to become a signatory



Receive (tailored) guidance and training



Get access to IUCN's network of experts and members



Identify efficiencies in operations



Build brand value



Establish new partnerships



Be part of a forward-thinking community



Who can become a signatory



Any sport organisation – club, federation, NOC, league, series, event - of any size, level, sport capacities and location.



Must be ready to make measurable contributions for nature under the Framework's four principles.



Other organisations & individuals
Reach out to the S4N team to discuss how you could get involved.

How to become a signatory

1.

Contact the S4N Team to learn more about the Framework and discuss the eligibility of your organisation.

2.

Write a short motivation statement outlining why your organisation wants to join, what it would like to achieve and how the S4N Team can support you.

3.

Sign the S4N Declaration and send it to the S4N team.

Beyond the Framework



Further information

Information

- [Sports for Nature webpage](#)
- [Sports for Nature Declaration](#)
- [S4N Signatories](#)
- [Sports for Nature Infopack](#)

Existing Guides

- [Sport and biodiversity](#)
- [Mitigating biodiversity impacts of new sports venues](#)
- [Sports and urban biodiversity](#)
- [Mitigating biodiversity impacts of sports events](#)
- [Sports for Nature: Setting a Baseline – Handbook](#)

Contact

- sportsfornature@iucn.org



4. Q&A



**Sports
for Nature**



Thank you

sportsfornature@iucn.org