Northern Ireland Environment Agency
Gníomhaireacht Comhshaoil Thuaisceart Éireann
Norlin Airlan Environment Agency
www.daera-ni.gov.uk

ANGLING (FRESHWATER & MARINE) PATHWAY ACTION PLAN FOR THE PREVENTION OF INVASIVE ALIEN SPECIES



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An Agency within the Department of Agriculture, Environment and Rural Affairs
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Gníomhaireacht de chuid na Roinne Talmhaíochta, Comhshaoil agus Gnóthaí Tuaithe
An Agency wi'in the Depairtment o Fairmin, Environment an' Kintra Matthers

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An invasive alien species (IAS) is a plant, animal or other living organism that may be either accidentally or intentionally introduced by man, and which can have a negative ecological or economic impact in an area where it does not naturally occur.

The Northern Ireland Environment Agency (NIEA) developed this Pathway Action Plan (PAP), with assistance from DAERA Inland Fisheries, Loughs Agency and other related stakeholders that form the PAP Working Group (See Annex 1). NIEA is an agency of the Department of Agriculture Environment and Rural Affairs (DAERA). NIEA, along with other divisions of DAERA and the Working Group, will monitor the implementation of the listed actions. The Working Group membership will be confirmed within 6 months of the final publication of this PAP.

Background to action planning

Reducing the risk posed by pathways of introduction and spread is a key way of tackling IAS. The Invasive Alien Species Strategy[1] for Northern Ireland (NI) calls for the development of PAPs and they are a requirement under the EU Invasive Alien Species Regulation[2]. Regulation (EU) No 1143/2014. They can also form an element of the programme of measures under the UK Marine Strategy 2010 (UKMS)[3] and the Environmental Improvement Plan[4].

This PAP is one of a series of plans intended to address pathways of introduction or spread of non-native species in NI. Regulation (EU) No 1143/2914 defines pathways as 'the routes and mechanisms of the introduction and spread of IAS'[2]. Pathways can apply to the geographic route by which a species moves outside its natural range, or the human activity, in this instance, angling, that leads to a deliberate or accidental introduction[5].

Many IAS are introduced unintentionally. The most effective way to manage these unintentional introductions is through the management of the introduction pathway itself, rather than measures targeted at specific species. This plan outlines the general policy and approaches as well as deliverables by government and other actors in relation to the management of the angling pathway.

Scope

This Plan is aimed at the angling pathway, covering marine and freshwater environments, coarse and game fishing, including both wild and stocked fisheries but excludes aquaculture. The geographical scope of the PAP is NI but will also refer, where relevant, to Ireland from a biogeographical perspective and further afield (particularly Continental Europe).

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Rationale

There are currently around 100 invasive non-native freshwater and marine species established in NI. These species, especially those in freshwater, tend to be particularly invasive. In recent decades, the rate of arrival of IAS has accelerated, with many species coming from the Ponto-Caspian region. These include invasive species such as the zebra mussel (*Dreissena polymorpha*), now well established in Lough Erne and Lough Neagh; the quagga mussel (*Dreissena rostriformis bugensis*), first recorded in Lower Lough Erne in December 2025; and the demon shrimp (*Dikerogammarus haemobaphes*), recorded for the first time in Ireland in September 2025 within the Shannon system, creating a direct pathway for its spread into NI. In addition, other freshwater arrivals in NI include the Asian clam (*Corbicula fluminea*), bloody red shrimp (*Hemimysis anomala*) and pathogens such as the crayfish plague (*Aphanomyces astaci*). There are many more aquatic invasive species with the potential to arrive and establish in NI, including plants that can clog freshwater lakes and navigations, marine species that can foul boats and propellers, and aquatic invertebrates which can completely alter natural ecosystems. There is also a range of fish diseases that pose a threat to fish in the UK and Ireland along with several invasive fish like topmouth gudgeon (*Pseudorasbora parva*) which pose a threat to angling. This PAP allows us the opportunity to try and prevent the arrival of IAS and associated pathogens into NI.

As well as impacting our native biodiversity, IAS can negatively impact our economy. The estimated annual cost of invasive species to the NI economy in 2021 was £150 million[6].

Good biosecurity is critical to reduce the risk of introduction and spread of aquatic invasive non-native species. In 2011 the GB government introduced the Check Clean Dry (CCD) public awareness campaign aimed at improving biosecurity amongst water users. NI, along with all other British Irish Council (BIC) jurisdictions (GB, Ireland, Isle of Man, Jersey and Guernsey) have fully adopted CCD and have adapted the resources from this campaign and promote CCD via the Invasive Species NI website and multiple leafleting campaigns.

There is a European Code of Conduct on Recreational Fishing and Invasive Alien Species[7] that has been developed under the Bern Convention and this area is also covered by a number of relevant NI Acts/ Orders/Policy instruments. The recommendations outlined in this plan support the EU Invasive Alien Species Regulation (Regulation (EU) No 1143/2014)[2] which, along with Species of Union Concern, provides a general prohibition on the release of any non-native species of animal or plant into the NI environment. Regulation (EU) No 1143/2014 applies in NI under Annex 2 of the Windsor Framework. It is enforced via the corresponding Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019[8] .

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Other relevant legislation:

The Wildlife (Northern Ireland) Order (1985) (as amended)[9]
The Aquatic Animal Health Regulations (Northern Ireland) 2009[10]
Molluscan Shellfish (Control of Deposit) Order (Northern Ireland) 1972 Order[11]
Lobsters (Prohibition of Introduction) Order (Northern Ireland) 1982[12]
All movements of fish or shellfish into NI must be notified on TRACES
Environmental Improvement Plan for Northern Ireland[4]
The UK Marine Strategy Regulations 2010 (UKMS).[14]

However, legislation alone is not sufficient to manage and lower the risk associated with introducing or spreading IAS. It requires cooperation and collaboration from all concerned, each sector is part of the solution and plays an important role in IAS management and implementing best biosecurity practice. This plan sets out additional actions to help to minimise the risk of introduction and movement of invasive non-native species by the activities of anglers and/or their associated equipment.

NI has adapted the GB Angling PAP and has detailed measures to raise awareness among key actors in the sector and strengthen existing biosecurity mechanisms. These actions are outlined below, and they form the main body of the action plan.

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Aims and Objectives

The overall aim of the PAP is to reduce the risk of introduction and spread of IAS by anglers based on international good practice.

Specific objectives are to:

- Facilitate the uptake of good biosecurity practice by the angling community – promote the CHECK CLEAN DRY (CCD) campaign.
- Raise awareness of the invasive non-native species issue amongst anglers.
- Raise awareness of invasive non-native species amongst fisheries managers and riparian owners.
- Raise awareness of invasive non-native species amongst traders and the media.
- Encourage all stakeholders to report novel IAS to CEDaR online, iRecord, NIEA Wildlife Team, Loughs Agency and DAERA Inland Fisheries Officers.
- Promote partnership working.

Key Actors/Implementation

- Northern Ireland Government
- Northern Ireland Local Government (All councils)
- Northern Ireland Environment Agency
- DAERA Inland Fisheries
- Loughs Agency
- Ulster Angling Federation
- All angling governing bodies (Coarse, Game and Sea)
- Waterways Ireland
- Agri-Foods and Biosciences Institute
- DAERA Marine & Fisheries Division
- DAERA Fish Health Inspectorate
- Department for Infrastructure

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- Fishing festival/competition organisers
- Other aquatic asset owners that permit angling
- Queens University Belfast/Ulster University
- The Rivers Trusts
- Angling clubs
- Recreational fishery owners and managers
- Wild fish conservation organisations
- Local Community/Action Groups
- Riparian owners and managers

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Actions

Key general actions are outlined below while a more detailed set of actions are to be found in Annex 2. Timetable for actions is included in Annex 7.

Action 1: DAERA Border Biosecurity Campaign

DAERA will oversee the running of a border biosecurity campaign concentrating on the high risk routes of entry to NI and Ireland:

- GB to NI ferry traffic.
- Europe direct to Ireland ferry traffic travelling to NI.
- Domestic and international flights to NI.

Action 2: CCD Messaging on Rod Licenses

DAERA to include the CCD message on the online angling licence process.

Action 3: Establish a British Irish Council Biosecurity Group

DAERA, as members of British Irish Council (BIC) INNS Group, will work with other member jurisdictions to establish and run a BIC Aquatic Biosecurity group to agree co-ordinated measures, including action at ports, airports, Eurotunnel and on ferries.

Measures to include:

- Adding a Check, Clean, Dry (CCD) or disinfect declaration to international passenger entry forms.
- Alongside CCD declaration, a declaration of the previous location the angling gear and associated equipment was used (this will alert border control to high-risk incidences and allow them to be more selective in their inspections i.e., if angler/equipment came from Ponto-Caspian region).
- Passengers with angling gear should also declare their intended destination/s.
- Thorough inspection of angling gear, associated equipment and vehicles.
- Failure to comply will result in the quarantine or cleaning of angling gear and associated equipment; and may result in penalties e.g. loss of angling license/rod permit, fines.

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Action 3a : Introduce an All-Island Alert-System

DAERA will work with Ireland government to introduce an all-island alert-system, whereby Ireland will be notified of any passengers entering NI, where it has been established that they have been fishing in a high-risk area, whose final destination is an Ireland waterbody and vice versa.

Action 4 : Aquatic Biosecurity Programme of Action NI/Ireland

DAERA will liaise with government in Ireland which will be working with member states to agree a programme of action related to aquatic biosecurity (see Annex 4 for those priority species we aim to prevent entering NI). NI will also continue to liaise with the GB Non-Native Species Secretariat (GBNNSS) and BIC colleagues to produce further biosecurity protocols.

These will be targeted at:

- International anglers visiting NI and Ireland in same visit.
- Local NI and Ireland anglers recently returned from the European continent.

Action 5 : CCD Requirement When Applying for Site License

All angling locations will adopt CCD protocols and include these in all lease and management agreements, relating to angling at their sites, when they next come up for agreement/renewal.

Action 6 : Angling Governing Bodies to Adopt CCD Protocols in TORs

Angling governing bodies will be encouraged to adopt CCD protocols to include in their constitutions or Terms of Reference (TORs) (See Annex 5).

Action 7 : DAERA to Make List Available of High Risk Angling Sites

The DAERA Invasive Non-Native Species Team will compile and maintain a list of sites/waterways which contain widely spread IAS (at UK National or Regional levels) that are a priority to contain or slow the spread of (see Annex 6 for Widely Spread Species list) and where angling occurs.

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Action 8 : Site Owners to Adopt & Provide Equipment for Members to CCD

Owners and managers of these sites, where angling occurs, will install facilities and signage showing they have adopted CCD protocols (see Annex 8 for resources). This may include:

- Suitable hard standing.
- Cold water wash down facilities.
- Large prominent signage.
- Hot water wash down facilities where possible and practicable.
- Enact local biosecurity by-laws where possible.

Action 9 : Event Organisers to Raise Awareness of, and Adopt, CCD Protocols

Organisers of angling events will be asked to raise awareness and ensure CCD protocols are adopted, especially where invasive species are already present.

This will include:

- A CCD declaration form should be adopted at angling competitions and endorsed by angling clubs.
- This would make it a mandatory requirement to CCD all equipment and tackle before participation in a competition.
- Those who fail to comply would have to check and clean equipment before they are allowed to compete.
- In addition, participants should declare the previous location the angling gear and associated equipment was used (this will alert organisers to high-risk incidences and allow for more thorough cleaning e.g. if gear/equipment came from Ponto-Caspian region).

Action 10 : Circulate Biosecurity Guidance to All Fisheries

DAERA Fish Health Inspectorate will circulate fisheries biosecurity guidance (see Annex 3) to all fisheries.

Action 11 : Campaign to Encourage Anglers to Record IAS

Run a campaign aimed at encouraging anglers to record all IAS sightings on CEDaR, iRecord or iNaturalist: DAERA will assess the effectiveness of this campaign through the analysis of engagement and reporting via CEDaR.

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Monitoring and updating

The Working Group will be re-convened annually to assess progress with achieving the actions. The group will consider all relevant information including the following:

- Number of organisations/clubs/sites signed up to promote CCD.
- Baseline uptake of biosecurity among anglers – then future measurement of improvements to uptake. Particularly important for anglers travelling abroad and for foreign anglers visiting NI from infested waters in GB or abroad.
- Number of angling events organised by each relevant key actor which have provided cleaning facilities each year to demonstrate increasing trend.
- Number of water assets/access points that provide cleaning facilities for anglers permanently or temporarily e.g. during peak season (and within that how many promote/police use of them).

Along with internal annual reviews, as per requirements of the Regulation, this PAP will be reviewed every six years.

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References

[1] An Invasive Alien Species Strategy for Northern Ireland (2013).

[2] Regulation (EU) No 1143/2014 of the European Parliament and of the Council of 22 October 2014 on the prevention and management of the introduction and spread of invasive alien species. https://eur-lex.europa.eu/eli/reg/2014/1143/oj/eng

[3] The UK Marine Strategy 2010 (UKMS). This statutory instrument transposes the requirements of the Marine Strategy Framework Directive 2008/56/EC. https://www.legislation.gov.uk/uksi/2010/1627/contents

[4] The Environmental Improvement Plan for Northern Ireland.Environmental Improvement Plan for Northern Ireland

[5] Genovesi, P., Carboneras, C., Vilà. M., Walton, P. 2015. EU adopts innovative legislation on invasive species: a step towards a global response to biological invasions? Biological Invasions 17: 1307-1311

[6] Eschen, R., Kadzamira, M., Stutz, S., Ogunmodede, A., Djeddour, D., Shaw, R., Pratt, C., Varia, S., Constantine, K. and Williams, F., 2023. An updated assessment of the direct costs of invasive non-native species to the United Kingdom. Biological Invasions, 25(10), pp.3265-3276.

[7] Council of Europe. European Code of Conduct on Recreational Boating and Invasive Alien Species. Strasbourg, 2016. Prepared by Ms Emma Barton, European Boating Association, on behalf of the Bern Convention.

[8] The Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019 https://www.legislation.gov.uk/nisr/2019/159/made

[9] The Wildlife (Northern Ireland) Order (1985) (as amended). https://www.legislation.gov.uk/nisi/1985/171/contents

[10] The Aquatic Animal Health Regulations (Northern Ireland) 2009. The Aquatic Animal Health Regulations (Northern Ireland) 2009 (legislation.gov.uk)

[11] Molluscan Shellfish (Control of Deposit) Order (Northern Ireland) 1972 Order. The Molluscan Shellfish (Control of Deposit) Order (Northern Ireland) 1972 (legislation.gov.uk)

[12] Lobsters (Prohibition of Introduction) Order (Northern Ireland) 1982. The Lobsters (Prohibition of Introduction) Order (Northern Ireland) 1982 (legislation.gov.uk)

[13] The EU fish health regime under Directive 2006/88/EC. https://www.legislation.gov.uk/eudr/2006/88

[14] UK Marine Strategy 2010 (UKMS). https://www.legislation.gov.uk/uksi/2010/1627/content

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Annex 1: NI Working/Advisory Group members (TBC):

If they agree, the following membership will take part in further discussions regarding updating, improving and monitoring of this PAP. If you know of any other potential members to nominate, please contact the NIEA INNS team – invasivespecies@daera-ni.gov.uk:

Loughs Agency (Possible Chair)

NIEA Invasive Non-Native Species Team (INNST) (Secretary)

Lagan Rivers Trust

Ballinderry Rivers Trust Ulster Angling Federation

Ulster Coarse Fishing Federation (UCFF)

DAERA Inland Fisheries

DAERA Fisheries Inspectorate

Agri-Food & Biosciences Institute – Fisheries & Aquatic Ecosystems

Northern Ireland Government

Northern Ireland Fish Producers' Organisation (NIFPO)

Northern Ireland Fly Fishing Association

Northern Ireland Coarse Fishing Charity (NICCA)

Northern Ireland Angling Forum

The Irish Federation of Sea Anglers - Ulster Provincial Council

The National Coarse Fishing Federation - Ulster Provincial Council

NI Water

Sport NI

Tourism NI

Department of Communities River Managers

Department of Infrastructure Rivers

Local Council representatives

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Annex 2: NI Angling Code of Conduct

THE NORTHERN IRELAND CODE OF CONDUCT ON ANGLING AND INVASIVE ALIEN SPECIES 2026

Ideas and texts for this code were drawn from the Council of Europe European Code of Conduct on Recreational Fishing and Invasive Alien Species and tailored to fit the requirements of Northern Ireland (NI) as a devolved administration of the U.K.

This document is primarily aimed at recreational fisheries.

For purposes of Regulation (EU) No 1143/2014, we will use the term invasive alien species (IAS) but in some cases they may also be referred to as Invasive Non-Native Species (INNS).

An IAS is a plant, animal or other living organism that may either be, accidentally or intentionally introduced by man, and which can have a negative ecological or economic impact in an area where it does not naturally occur.

The estimated annual cost of invasive species to the NI economy in 2021 was £150 million[1]. Adopting preventative measures to avoid unintentional introduction and spread of invasive non-native species is widely accepted as the most effective approach to tackle their threat. The EU Invasive Alien Species Regulation[2] and The Invasive Alien Species Strategy for Northern Ireland[3] both aim to target pathways of IAS introductions, prioritising them and putting measures in place to minimise IAS introduction and establishment. In the past, little thought was given to introduction of IAS by recreational fishing. However, with an estimated 54,000 people fishing in NI in 2012[4], it is clear angling here represents a potentially significant pathway for the movement of IAS between different waterways in Ireland, Great Britain and further afield. As such, anglers represent a group of people on which to concentrate educational material and resources as it is anticipated that through education and raising awareness, we will reduce the risk of introduction and spread of IAS by recreational angling. We can also ensure that angling forms part of the solution in tackling IAS, with anglers acting as the 'eyes and ears', spotting and reporting the spread of IAS via CEDaR (Centre for Environmental Data and Recording), iRecord or iNaturalist, as well as participating in their control and eradication.

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This code of conduct aims to encourage effective practices to prevent future introduction and movement of IAS by angling activity. Angling organisations, and institutions hosting angling activity on their waters, also have an essential role to play in educating recreational fishers on the impacts of IAS and the importance of biosecurity.

The recommendations outlined here aim to increase the engagement of angling organisations in their role in raising awareness of IAS. Many of these recommendations support existing legislation such as:

- The Wildlife (Northern Ireland) Order 1985[5]
- Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species[2]
- The Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019[6]

and codes, such as:

- The European Inland Fisheries Advisory Commissions (EIFAC) Code of Practice for Recreational Fisheries (2007)[7]
- The Convention on the Conservation of European Wildlife and Natural Habitats European Charter for Recreational Fishing and Biodiversity (2010)[8].

This code consists of three key measures:

1) Adopt effective preventative measures, like Check, Clean, Dry (CCD), to avoid unintentional introduction and spread of IAS.

2) Engage in initiatives to increase anglers' awareness of the threat of IAS and the need for biosecurity.

3) Adopt appropriate biosecurity practices for all fisheries, habitat and water body management.

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Detailed suggestions for the implementation of the key measures are outlined below.

1) Adopt effective preventative measures to avoid unintentional introduction and spread of invasive non-native species.

- All fisheries must assess the risk of introduction and further spread of IAS and diseases to their fisheries (identifying measures to minimise the risks where these are significant) and provide a report of their results to the NIEA INNS Team.

- Information and basic training on IAS must be provided to members of staff to ensure they understand the risks of IAS, are adequately trained to mitigate these risks, and know what to do if they come across IAS in a water body.

- Stocking and re-stocking should only be in accordance with relevant regulation and guidance, and measures should be put in place to prevent the unintentional introduction of IAS along with consignments of fish.

- Introduction of any invasive non-native species to create fisheries should be avoided. Where proposed, they must comply with the EIFAC Code of Practice on Species Introductions, and relevant local or national regulations. For example, in NI, the introduction of invasive non-native species like carp and rainbow trout require a licence issued by the NIEA Wildlife Team.

- Where practical, access and egress for anglers should be limited, preferably to a single spot. Anglers should log in and out, confirming that their equipment has been Checked, Cleaned and Dried since its last use, before entering, and Checked and Cleaned before leaving. Where a new IAS has been identified, this procedure must always be followed to allow containment.

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- A CCD declaration form should be adopted at angling competitions and endorsed by angling clubs.
    - This would make it a mandatory requirement to CCD all equipment and tackle before participation in a competition.
    - Those who fail to comply would have to CCD equipment before they are allowed to compete.
    - In addition, participants should declare previous location the angling gear and associated equipment was used (this will alert organisers to high-risk incidences and allow for more thorough cleaning e.g. if gear/equipment came from the Ponto-Caspian region).
- Under section 55 of the Fisheries Regulations (Northern Ireland) 2014, in freshwater bodies in NI, it is prohibited to use live bait for the purpose of attracting and taking fish.
- Avoid using live bait as it can go on to become invasive in the waterway. Do not reuse bait, as bait can pick up parasites and diseases which can then be spread between waterbodies.
- If possible, nets, drogues, boats and boat equipment should be provided at any site that already has an active infestation of IAS and should be used in preference to personal equipment brought in from off site. If using own boat a singular launching/recovering vehicle could be used.
- Discourage the use of neoprene waders and felt soled wading boots by anglers as these are more difficult to clean and take longer to dry.
- Anglers should Check, Clean and Dry all equipment in line with the CCD Campaign to ensure IAS are not transported from one site to the next . They should be encouraged to place equipment in a well ventilated space to aid in drying as opposed to storing in an enclosed space, such as the boot of a car or thrown wet into a corner of the garage.

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- Fisheries that are high risk for IAS or with known IAS should, where practical, require anglers to fish from the shore/dry rather than entering the water. This could be accommodated by the installation of fishing stands or stone walkways.

- Provision of biosecurity stations/cleaning facilities at sites. These ideally should not be connected to the drainage system and must be inspected, and records kept regularly.

- Ideally all cleaning and inspection operations should be supervised by a volunteer or member of staff.

- Early warning and rapid responses to new IAS should be supported. Sightings of new IAS should be immediately reported to the NIEA INNS team, via CEDaR, iRecord or, iNaturalist.

- Be fully aware of, and comply with, all relevant laws, regulations relating to IAS and promote the CCD Campaign.

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2) Engage in initiatives to raise anglers' awareness of the threat of IAS and the need for biosecurity.

- Support awareness raising activities to inform anglers on the issue of IAS, and encourage good biosecurity though promotion of CCD and Invasive Species Week .

- Promotion of iRecord, iNaturalist and CEDaR facilities for reporting IAS. Highlight to anglers not only to concentrate on aquatic IAS but also to report terrestrial IAS on riverbanks and coastal habitats.

- Provide adequate signage and guidance to all recreational anglers to make them aware of the risk of IAS and provide advice on how to prevent their spread. Include guidance on day tickets for visiting anglers.

- Engage recreational anglers in programmes to remove IAS to increase educational and practical awareness as well as using them as a therapeutic resource.

- Where possible include IAS and biosecurity information, such as an IAS identification guide, a guide to reporting IAS or a guide to CCD, on club membership/cards/books and on day tickets for visiting anglers .

3) Adopt appropriate biosecurity practices for all fisheries, habitat and water body management.

Bank side and in-water management are frequent practices undertaken by recreational fisheries, such as dredging or re-profiling banks, managing vegetation, installing or repairing dams, pontoons or jetties, installing and maintaining fishing platforms. Various organisations, angling clubs and individuals undertake valuable conservation activities to restore natural features such as meanders and bank-side vegetation, re-introduce lost native fish species, or other measures to improve water quality. These conservation measures represent a risk of unintentionally spreading or introducing IAS (and disease and pathogens). For this reason, it is important that these activities take the required biosecurity measures to prevent the risk of IAS spread.

- Recreational fisheries should engage with authorities or others in management planning for biosecurity, control, and eradication of IAS.

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- Advice and guidance for mitigating the risk of IAS and improving biosecurity during habitat and instream works should be produced by the relevant authority.

- A compulsory biosecurity procedure should be produced for each project outlining and mitigating the potential IAS risks posed by suppliers, contractors, equipment, individuals (Advice and guidance can be sought from the relevant authority).

Relevant legislation and codes of practice

Check Clean Dry NI

Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species

The Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019

The Wildlife (Northern Ireland) Order 1985

EIFAC Code of Practice for Recreational Fisheries (2008)

Application for a permit under section 48 of the Fisheries Act (NI) 1966- In River or Waterbody Works DAERA section 48 permit

Guidelines for Fisheries Protection during Development Works (Foyle and Carlingford areas) https://www.legislation.gov.uk/nisi/2007/915/memorandum

Loughs Agency Primary Legislation - https://www.loughs-agency.org/what-we-do/protection/regulations

A Strategic Review of Angling in Northern Ireland 2013 : An update on Developments (October 2016)

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[1] Eschen, R., Kadzamira, M., Stutz, S., Ogunmodede, A., Djeddour, D., Shaw, R., Pratt, C., Varia, S., Constantine, K. and Williams, F., 2023. An updated assessment of the direct costs of invasive non-native species to the United Kingdom. Biological Invasions, 25(10), pp.3265-3276.

[2] Regulation (EU) No 1143/2014 on the prevention and management of the introduction and spread of invasive alien species https://eur-lex.europa.eu/eli/reg/2014/1143/oj/eng

[3] An Invasive Alien Species Strategy for Northern Ireland (2013) https://www.daera-ni.gov.uk/sites/default/files/publications/doe/invasive-species-2013-4--web.pdf

[4] Hughes, G., Hughes, E., Sangster, M., and Kaley, A (2013) A strategic review of Angling in Northern Ireland: Executive summary. https://www.daera-ni.gov.uk/sites/default/files/publications/daera/A%20Strategic%20Review%20of%20Angling%20in%20Northern%20Ireland%20%28Executive%20Summary%20-%202013%29.pdf

[5] The Wildlife (Northern Ireland) Order (1985) (as amended) https://www.legislation.gov.uk/nisi/1985/171/contents

[6] The Invasive Alien Species (Enforcement and Permitting) Order (Northern Ireland) 2019 https://www.legislation.gov.uk/nisr/2019/159/made

[7] FAO European Inland Fisheries Advisory Commission, 2008. European Inland Fisheries Advisory Commission: EIFAC Code of Practice for Recreational Fisheries. EIFAC Occasional Paper, (42). https://www.fao.org/4/i0363e/i0363e00.htm#:~:text=It%20serves%20as%20the%20core,recreational%20fishing%20and%20its%20management

[8] Brainerd, S., 2010, December. European charter on recreational fishing and biodiversity. In Strasbourg, Standing Committee 30th meeting Strasbourg (pp.6-9).

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Annex 3: Biosecurity guidance for fisheries owners

Biosecurity guidance/plan for fisheries owners in NI also to be added when agreed by group in Annex 1.

Annex 4: Priority concern list of aquatic IAS

List of freshwater, marine and pathogen species that are a priority concern to keep out of Northern Ireland (NI) and for which there may be a risk of introduction via angling and related activities. Some are already present in NI in low levels but are localised to specific areas. For these species, the aim is to both reduce risk of their introduction and prevent further spread via angling. Some species are more widespread and present in Ireland, GB waters and on mainland Europe.

(Those highlighted in red are alert species for NI).

Freshwater

Scientific name	Common Name	Taxon Group	Present in NI	Date first recorded in NI	Notes
Alternaterna philoxeroides	Alligator weed	Plant	No		
Astacus astacus	Noble Crayfish; Broad-fingered crayfish	Crustacean	No		
Barbus barbus	Barbel	Fish	No		
Chelicorophium robustum	N/A	Amphipod	No		Also found in brackish waters.
Corbicula fluminea	Asian Clam	Mollusc	Yes	2016	Localised populations in the River Foyle and more recently in the Erne System.
Dikerogammarus bispinosus	N/A	Amphipod	No		

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Scientific name	Common Name	Taxon Group	Present in NI	Date first recorded in NI	Notes
Dikerogammarus haemobaphes	Demon shrimp	Amphipod	No		Present in Shannon catchment, Ireland (first recorded in September 2025).
Dikerogammarus villosus	Killer shrimp	Amphipod	No		Also found in brackish waters.
Dreissena rostriformis bugensis	Quagga mussel	Mollusc	Yes		Recorded in Shannon Catchment, Ireland in 2021. Recorded in Lower Lough Erne, December 2025.
Echinogammarus ischnus	N/A	Amphipod	No		Also found in brackish waters.
Echinogammarus trichiatus	N/A	Amphipod	No		
Eriocheir sinensis	Chinese mitten crab	Crustacean	No		Present in Waterford Estuary, Ireland.
Hypania invalida	N/A	Polychaete	No		Also found in brackish waters.
Limnomysis benedeni	N/A	Crustacean	No		Also found in brackish waters.
Ludwigia grandiflora spp	Water primrose	Plant	No		
Neogobius gymnotrachelus	Racer goby	Fish	No		
Neogobius melanostomus	Round goby	Fish	No		
Obesogammarus crassus	N/A	Amphipod	No		Also found in brackish waters.
Oncorhynchus gorbuscha	Pacific or Pink humpback salmon	Fish	Yes	2017	*For discussion Two confirmed incidences. One at River Bush Salmon Research Station, another in River Mourne, Sion Mills.
Oncorhynchus mykiss	Rainbow trout	Fish	Yes	1969	*For discussion
Orconectes limosus	Spinycheek crayfish	Crustacean	No		

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Scientific name	Common Name	Taxon Group	Present in NI	Date first recorded in NI	Notes
Orconectes rusticus	Rusty crayfish	Crustacean	No		
Orconectes virilis	Virile crayfish	Crustacean	No		
Pacifastacus leniusculus	Signal crayfish	Crustacean	No		
Pontogammarus robustoides	Scud	Amphipod	No		Also found in brackish waters.
Proterorhinus marmoratus	Tubenose goby	Fish	No		
Proterorhinus semiluaris	Freshwater tubenose goby	Fish	No		
Pseudorasbora parva	Topmouth gudgeon; stone moroko	Fish	No		
Salvelinus fontinalis	Brook trout; Brook charr; Sea trout	Fish	No		*For discussion.
Sander lucioperca	Zander; Pikeperch	Fish	No		
Squalius cephalus	Chub	Fish	No		*For discussion.
Thymallus thymallus	Grayling	Fish	No		

Marine

Scientific name	Common Name	Taxon Group	Present in NI	Date first recorded in NI	Notes
Agarophyton vermiculophylla	Worm Weed	Marine algae	Yes	2012	First recorded in Dundrum Bay. Now present around the coast.
Arcuatula senhousia	Asian date mussel	Mollusc	No		
Asparagropsis armata	Harpoon weed	Marine algae	Yes	2016	Present in Narrow Water Keep, Strangford Lough, and two incidences in Belfast Lough.

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Scientific name	Common Name	Taxon Group	Present in NI	Date first recorded in NI	Notes
Asterocarpa humilis	Compass sea squirt	Tunicate	Yes	2017	Recorded at Church Bay; Rathlin Island, Bangor Yacht Club, Strangford Lough, Belfast Lough and Portrush Harbour.
Bonnemaisonia hamifera	A red macroalgae	Marine algae	Yes	2002	Widely spread across the NI coasts.
Caprella mutica	Japanese skeleton shrimp	Crustacean	Yes	2009	Localised distribution; Glenarm Marina, Rathlin Island, Strangford Lough and Belfast Lough.
Caulacanthus okamurae	Pom-pom weed	Marine algae	Yes	2016	Belfast Lough, Strangford Lough, Rathlin and localised sites along the North Coast.
Cercopagis pengoi	Fishhook waterflea	Crustacean	No		
Crepidula fornicata	American slipper limpet	Mollusc	Yes	2009	Only viable population recorded in Belfast Lough.
Diadumene lineata	Orange striped anemone	Cnidarian	Yes	2012	First recorded in Strangford Lough and was since recorded in Carlingford Lough.
Didemnum vexillum	Carpet sea squirt	Tunicate	Yes	2012	Localised distribution in Strangford Lough.
Ensis leei	American jack knife clam	Mollusc	Yes	2016	First recorded in Lough Foyle and has since been recorded in Belfast Lough.

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Scientific name	Common Name	Taxon Group	Present in NI	Date first recorded in NI	Notes
Gracilaria vermiculophylla	A red macroalgae	Marine algae (seaweed)	Yes	2012	
Grateloupia turuturu	Devil's tongue weed	Marine algae (seaweed)	Yes	2017	Localised to Millbay, Larne Lough and Carrickfergus Marina.
Hemigrapsus sanguineus	Asian shore crab	Crustacean	No		
Hemigrapsus takanoi	Brush-clawed shore crab	Crustacean	No		
Hesperibalanus fallax	Warm-water barnacle	Crustacean	No		
Mnemiopsis loidyi	Water comb jelly; Sea walnut	Ctenophore	No		
Neogobius gymnotrachelus	Racer goby	Fish	No		
Ocenebra inornata	Asian oyster drill	Mollusc	No		
Ocinebrellus onornatus	Japanese oyster drill	Mollusc	No		
Proterorhinus marmoratus	Tubenose goby	Fish	No		
Rapana venosa	Veined rapa whelk	Mollusc	No		
Rugulopteryx okamurae	Brown seaweed	Marine algae	No		
Sargassum muticum	Japanese wireweed	Marine algae	Yes	2002	Can also tolerate estuarine environments.
Styela clava	Leathery sea squirt	Tunicate	Yes	2008	First recorded in Larne Lough and now present in Belfast Lough and Strangford Lough.

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Scientific name	Common Name	Taxon Group	Present in NI	Date first recorded in NI	Notes
Undaria pinnatifida	Wakame	Marine algae (seaweed)	Yes	2012	Recorded in Glenarm, Carrickfergus, and Carlingford Marinas.
Urosalpinx cinerea	American oyster drill	Mollusc	No		

Pathogens

Scientific name	Common Name	How to identify it	Present in NI	Notes
Salmon isavirus	Infectious salmon anaemia (ISA) virus	Fish behave lethargically. They swim near the surface and often vertically when gasping. They are reluctant to feed. Symptoms normally develop slowly and include a distended abdomen, protruding bloodshot eyes and pale swollen gills[1]	No	First recorded in the West of Ireland in 2002. Ireland since declared free of ISA in 2009.
Aphanomyces astaci	Crayfish plague disease	Many dead or dying White-clawed crayfish (Austropotamobius pallipes), our native crayfish species.	Yes	Recorded in NI in 2018 in the headwaters of the River Blackwater near Aughentaine, Co. Tyrone.
Gyrodactylus salaris	Salmon fluke	Specialist knowledge needed. Heavily infected fish normally have damaged fins, particularly the dorsal, caudal and pectorals and there may be copious mucus	No	
Chelicorophium robustum	Infested fish are normally lethargic[1]	No	No	
Report suspected cases of these diseases to DAERA Inland Fisheries				

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Priority concern species were listed as a result of being assessed and ranked as high risk of becoming invasive should they arrive and establish in NI[1,2,3].

[1] Minchin, D ., 2014 . Risk assessment of non-indigenous marine species, Ireland: including those expected in inland waters. Report undertaken for The Centre for Environmental Data and Recording (CEDaR), Department of Natural Sciences, National Museums, Northern Ireland (NMNI) and the Department of Arts, Heritage and the Gaeltacht [Ref: NIS-2014# 1], 139 pp.

[2] Lucy, F .E ., Davis, E ., Anderson, R ., Booy, O ., Bradley, K ., Britton, J .R ., Byrne, C ., Caffrey, J .M ., Coughlan, N .E ., Crane, K . and Cuthbert, R .N ., 2020. Horizon scan of invasive alien species for the island of Ireland . Management of Biological Invasions, 11(2), pp .155-177.

[3] Kelly, J ., O'Flynn, C ., and Maguire, C . 2013 . Risk analysis and prioritisation for invasive and non-native species in Ireland and Northern Ireland. A report prepared for the NIEA and the NPWS as part of Invasive Species Ireland.

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Annex 5: A Biosecurity Clause for Governing Bodies

A biosecurity clause for inclusion by angling governing bodies in future angling club constitutions:

To provide CCD materials to their members. This should include displaying signage and materials at the club water, guidance on the organisation's website/social media streams, features in newsletters and sending materials to new members when they sign up.

BIOSECURITY

Members of the Club are asked to undertake good biosecurity practice whilst they are using the club's fishing waters.

This includes:

1 .1 .1 Making sure that their equipment is dry and free of mud prior to arriving at the site.

1.1.2 After every fishing trip, cleaning their equipment and boots in accordance with the Check, Clean, Dry guidance. Particular care should be given to the seams of boots and waders and the rims of nets.

Day ticket users visiting the club must be asked to follow the same Check, Clean, Dry guidance.

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Annex 6: Widely Spread Species (WSS) list

List of Widely Spread Species (WSS) that we want, as a priority, to contain or slow down their spread and for which there is a risk of spread via angling:

Scientific name	Common Name(s)	Taxon Group	Environment
Elodea nuttallii	Nuttall's waterweed	Plant	Freshwater
Gunnera tinctoria	Giant rhubarb	Plant	Riparian
Heracleum mantegazzianum	Giant hogweed	Plant	Riparian
Hydrocotyle ranunculoides	Floating pennywort	Plant	Freshwater
Impatiens glandulifera	Himalayan balsam, Indian balsam	Plant	Riparian
Koenigia polystachya	Himalayan knotweed	Plant	Riparian
Lagarosiphon major	Curly waterweed, African elodea, Lagarosiphon	Plant	Freshwater
Lysichiton americanus	American skunk cabbage	Plant	Riparian
Myriophyllum aquaticum	Parrot's feather	Plant	Freshwater
Trachemys scripta spp.	Red-eared, yellow-bellied and Cumberland sliders	Reptile	Freshwater

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Annex 7: Timetable for proposed actions and other tasks to be discussed with the Working Group

Task	Deadline	Responsible
Consultation	July – August 2026	DAERA
Publication of PAP	December 2026	DAERA
Confirmation of working group membership	Within 6 months of final publication of PAP	DAERA / NIEA
Action 1 Action 2	By NI Invasive Species Week 2028	DAERA and relevant BIC jurisdictions
Action 3 Action 3a	December 2027	DAERA and relevant BIC jurisdictions
Action 4	December 2027	DAERA, BIC, EU Member states
Action 5	From March 2028, all new lease/ management agreements going forward must meet requirements.	DAERA and relevant members of the Working Group
Action 6	March 2028	DAERA and angling governing bodies
Action 7	By NI Invasive Species Week 2028	DAERA
Action 8	By November 2028	Site owners/managers
Action 9	By NI Invasive Species Week 2028	Site owners/managers and event organisers
Action 10	By NI Invasive Species Week 2028	DAERA Fish Health Inspectorate
Action 11	Campaign run for NI Invasive Species Week 2028; review effectiveness before ISW 2029	DAERA
Monitoring the progress and effectiveness of actions	Working group will be convened annually The PAP will be reviewed every 6 years	Working group DAERA

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Annex 8: Check, Clean, Dry biosecurity campaign resources for raising awareness

These resources and more can be found on the Invasive Species NI website, where they are free to download and use for your club or event, to raise awareness and help tackle the introduction and spread of IAS. These resources were developed by the GBNNSS and adapted by NIEA for NI.

1) CCD campaign posters for coarse angling, marine angling, fishing abroad and game angling:









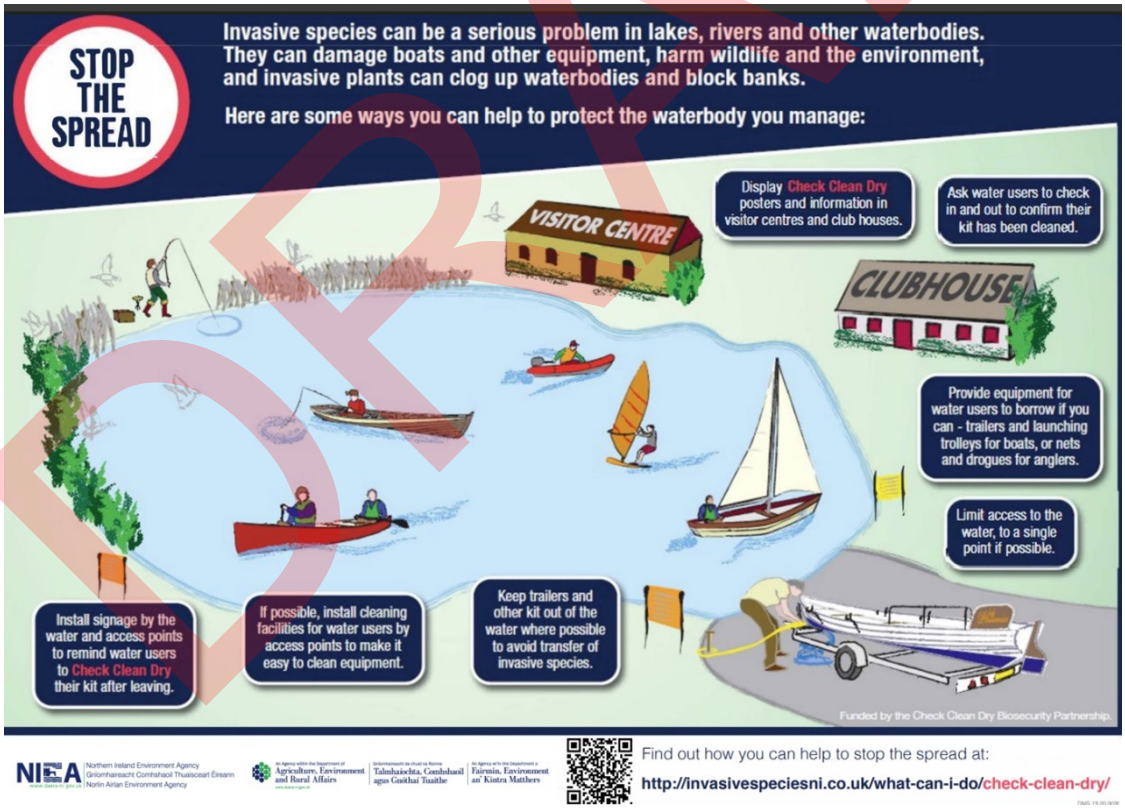
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2) CCD campaign leaflets for inland and marine angling:





3) Poster or sign for events, clubs and managers of waterbodies



PDFs can be edited or personalised with credit given to the GBNNSS.

For further information:

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Northern Ireland Environment Agency
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Norlin Airlan Environment Agency