



INTERREG IVA 2 Mers Seas Zeeën Programme

Cluster project **SEFINS**

Safeguarding the Environment From Invasive Non-native Species

Work Package 4: Evaluation



Front cover photo credits : Arjan Gittenberger (top left; boat hull fouled with macroalgae), Jo Packet (top right; *Dreissena polymorpha*), Tim Adriaens (bottom left; *Cotula coronopifolia*), INBO (bottom right; the Scheldt and Antwerp harbour)

This report is produced in the framework of the Cluster works, and coordinated by the INTERREG IV A 2 Seas Programme. This cluster is led by Norfolk County Council, and also gathers the partners CPIE Val d'Authie, ILVO, INBO and NVWA and the associate partners Het Zeeuwse Landschap, VLIZ, Eurisy, Natuurmonumenten, Bournemouth University, Suffolk County Council and CPIE Flandre Maritime.

SEFINS builds on the previous INTERREG projects RINSE and MEMO, which focused on invasive non-native species in the terrestrial and marine environment, respectively.

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1. Introduction

SEFINS Phase 2 focussed on improving invasive non-native species (INS) management in estuaries. Estuaries form the transitional zone between marine and freshwater environments. These areas are valued for their biodiversity and ecology, but are also culturally, commercially and recreationally important. Estuaries represent hotspots of cross-border activity, linking member states through high volumes of international freight and passenger vessels, commercial trawlers and leisure craft, but also host breeding and nursery areas for many threatened species.

Despite their relevance, INS in estuaries are frequently overlooked and much less well-studied in comparison to terrestrial and freshwater habitats of similar importance. However, the cross-border nature of many of the activities conducted within estuaries and their key ecological status makes them extremely susceptible to INS and very vulnerable to their impacts.

Both the UN Convention on Biological Diversity and the European Regulation on Invasive Non-native Species focus on the prevention and early detection of INS as priorities. This 'prevention not cure' approach is more effective and cost efficient than control and eradication in successful INS management. This is particularly critical in estuaries as INS in these areas are almost impossible to control or eradicate once established.

One of the main aims of this phase of the SEFINS Cluster was to increase awareness of the impacts of estuarine INS and the steps that can be taken to prevent their introduction and spread. Key stakeholder groups on the frontline of INS prevention and detection were targeted in a series of outreach events, ranging from direct contact, to training events, to informative media. These communication actions aimed to transfer INS knowledge from trained personnel and INS experts to people living and working in estuarine environments in a useful and relevant format. This is essential to effectively engage and empower local groups, creating a sense of ownership and responsibility, whilst beginning to embed a preventative outlook to biosecurity. These different communication actions were then reviewed to assess their efficacy and gain insight into the opinions of each target audience.

2. Outreach activities

2.1 Cross-border workshop (Netherlands & Belgium), June 2016

A cross-border workshop on the management of INS plants in estuaries was jointly organized by NVWA (NL) and INBO (B) and led by experts in this subject area. This one-day training opportunity aimed to bring practitioners and scientists together to share knowledge and best practice, whilst discussing common problems. The workshop combined classroom learning with excursions into the field environment to maximize knowledge transfer opportunities and ensure maximum engagement with participants.

The workshop was attended by 22 people and the training media used was made available online (www.sefins.eu) for reference after the event. An online survey was then circulated to participants to assess whether this event improved their capacity to tackle estuarine INS. The full survey is available in Appendix 1.



Figure 1. Field excursion during cross-border workshop.

Analysis

As shown in Figure 2, attendees at the workshop were employed by local government (over 50%) or by NGOs (non-governmental organisations, 25%). The remaining participants were either members of the public or from provincial foundations. Whilst there was little variation in the background of the participants, their work areas were more diverse (Figure 3). Conservation and research were common, however many attendees listed additional work areas to those provided by the survey. These included monitoring natural areas, pest control and financial management.

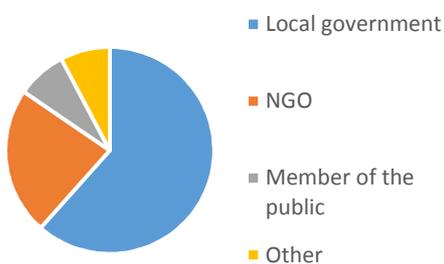


Figure 2. Participant background.

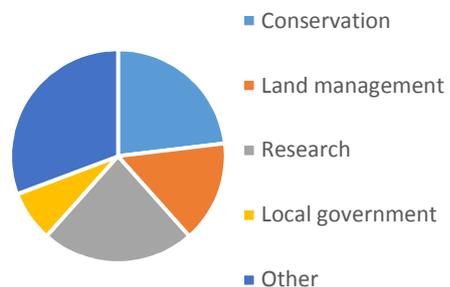


Figure 3. Participant work area.

Participants were asked to indicate how they felt the workshop had influenced their INS knowledge. Figure 4 shows that 70% of respondents felt that they had acquired some new information on INS, with 30% indicating they had acquired a great deal of new information. None of the participants felt

they didn't learn anything at the workshop. In terms of practical knowledge, the majority of respondents (65%) learnt new practical information on INS, with a further 20% learning a great deal of new practical knowledge. Approximately 15% of people did not learn any new practical knowledge.

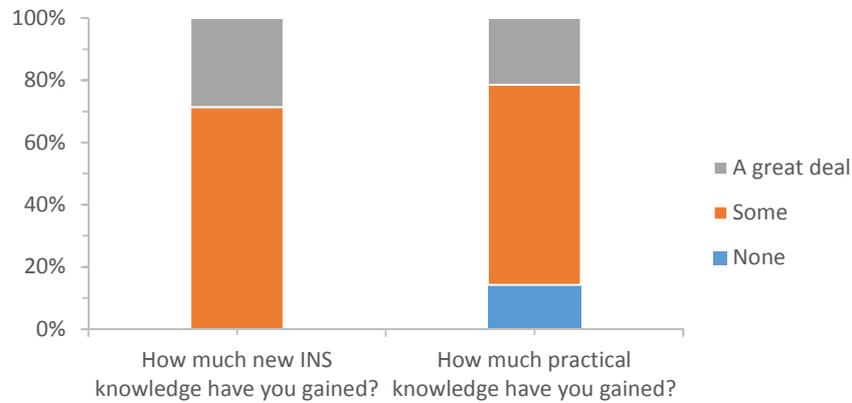


Figure 4. New knowledge acquired by participants at the workshop.

Figure 5 shows that the majority of respondents felt the aim of the workshop was clear (90%) and felt the material presented was relevant (100%) and useful (90%).

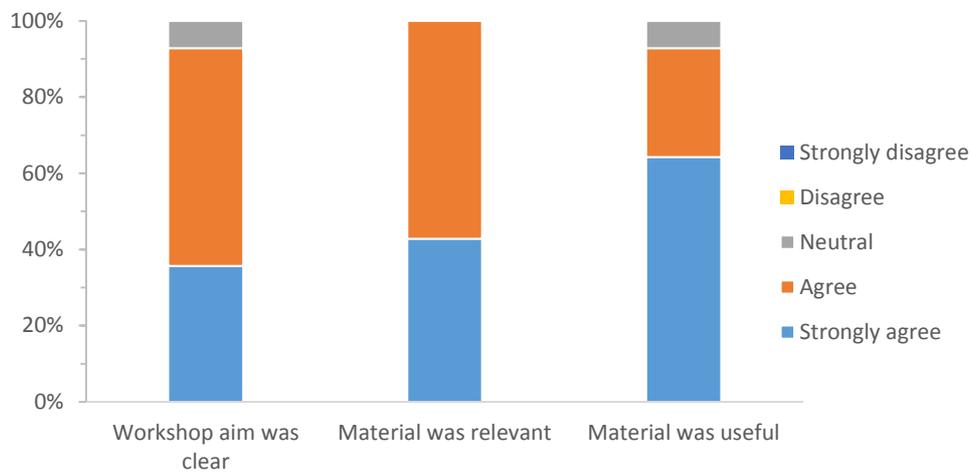


Figure 5. Relevance and usefulness of the workshop to participants.

Overall, the majority of participants rated the workshop as either excellent (30%) or good (65%). The remaining 5% considered the workshop to be average (Figure 6). None of the participants rated the workshop as poor or very poor.

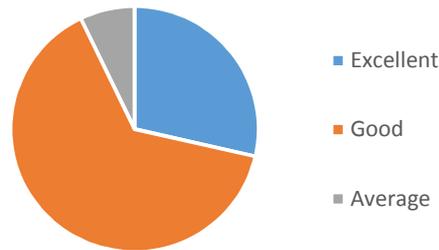


Figure 6. Participant rating of the workshop

The survey also provided an opportunity for workshop participants to write about what they considered to be the major strengths and weaknesses of the event. These are summarised below.

Strengths

- Informal, relaxed style of the event.
- Plenty of time for interaction, knowledge exchange and direct contact between participants and event leaders and also between just the participants themselves.
- Visits to the field environment were useful and very relevant.
- Good presentations.
- Programme layout, good balance between classroom and fieldwork (theory and practical work).
- New information, not just repeating the fact that INS are a problem in the area.
- Diversity of participants assured a wide range of views on INS plants and their management. This offered insight into problems in other areas and promoted understanding of the situation faced by other people.
- Good combination of management and science, useful to share information between land managers and researchers from the two countries.
- Opportunity to meet other people with the same problems and discuss/exchange experience.
- Opportunity to meet people from other fields, such as government officials, land workers and scientists.

Weaknesses

- A complete solution to the problem of INS has not been found.
- Workshop started late due to heavy traffic in the area delaying participants.
- Some presentations focussed on the research details, could be more focus on practical management.
- More explanation of INS management at the sites visited.
- The full programme was not published before the event.
- Questions remain on the best way to manage giant hogweed and Japanese knotweed.
- Not all sites have INS plant species, therefore management practices were not relevant.
- No interaction with policymakers of the organisations managing landscapes. This is needed to draw their attention and therefore resources to the problem.

Further comments

- National policy on INS plants is too weak. Need more/stronger legislation to prevent INS.

- Land management organisations have to spend a lot of money on eradications where they have not created the problem, impacting annual budgets and causing other management activities suffer.
- I am looking forward to the next workshop.
- Very interesting workshop. Worthwhile to be repeated!
- Another workshop in say 5 years would be very useful.
- Please organise an international workshop on Japanese knotweed with managers from UK, Ireland, NL, B, D and contractors working in this field (they exist in UK but in this country).

Discussion

Overall, this event can be considered a success. The workshop attracted a wide range of people working in areas key to the management of estuarine plant INS. Although backgrounds of the participants was not particularly broad, this is to be expected as only a limited number of organisations are directly responsible for land management in this area. Interestingly, the event was attended by a member of the public, which is a positive sign for future local engagement in this area. The workshop effectively increased INS knowledge levels amongst all the participants, although a small percentage did not gain any new practical information. The content was therefore relevant and most importantly aimed at the right level for the attendees to increase their capacity to deal with INS in their area.

This type of event should therefore be included in future INS communication strategies in the 2 Seas area, however the input provided from this workshop should be used to refine and improve the structure and content. For example, the programme design including both indoor and outdoor learning was well received and should be retained. However, in future events more specific demonstrations of management practices could be included within a fieldwork section. This would also help to retain focus on tackling INS at the ground level. INS policy was mentioned several times within the comments for the workshop. It may be worth gauging interest for an additional workshop focusing specifically on this area, promoting similar interactions to those seen in this workshop between land managers and regional policymakers.

2.2 Raising awareness in recreational boaters (France), June 2015

CPIE Val d'Authie visited marinas at two locations on estuaries in northern France on several occasions to raise awareness of INS amongst recreational boaters. Trained staff interacted with members of the public to share knowledge on common INS pathways of spread linked to navigation and nautical practices. The leaflet 'Alien invaders in estuaries' produced by the Cluster was used to support these outreach events, providing further reading to take home. A total of 38 individuals (either with or without their families) were reached by these events.

An online survey was created to assess the efficacy of this type of communication event, however uptake was low. This is most likely due to the transient nature of this type of audience, as many people are likely to be on holiday and not inclined to take time out to complete this type of assessment. However, the survey did receive some responses which can be used to provide feedback.

Participants were asked to indicate how they felt the interaction had influenced their INS knowledge. Respondents felt that they had acquired lots of new INS knowledge and in particular they acquired a great deal of new practical information. Participants felt that the aim of the interaction was very clear and that the activity was both useful and relevant to them. Respondents rated this type of outreach

event as very good and would like to see more events like this in the future. The strong points were listed as the species covered and the presence of on-site experts. No weaknesses were listed by respondents.



Figure 7. Trained staff visited popular marinas on the northern coast of France.

2.3 Distribution of INS informative leaflets to ports, harbours and marinas (UK)

A leaflet detailing the issues of INS in 2 Seas estuaries and providing a guide on their distribution and identification was jointly produced by the project partner, in the 3 project languages. This was considered to be an easily accessible and effective way to raise awareness amongst estuarine stakeholders who may be more difficult to engage in workshops or events, such as port workers, fishermen and (non-tourist) boaters. A fold-out leaflet style was selected to provide a large amount of information in a small document, increasing its portability and appeal to busy people.

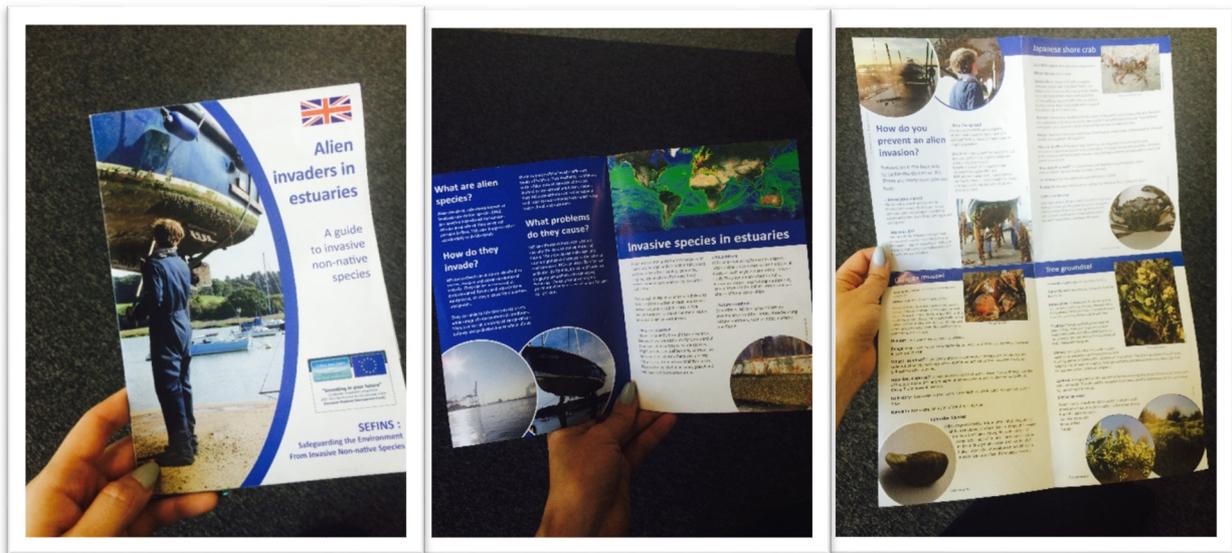


Figure 8. SEFINS Cluster leaflet “Alien Invaders in estuaries: a guide to invasive non-native species”.

Analysis

This leaflet was disseminated across a wide area along the coastlines of Norfolk and Suffolk:

- 500 leaflets were delivered to harbour masters at 20 Suffolk marinas and sailing clubs, providing comprehensive coverage of the Suffolk coastline. The leaflet is also available for free online at the Suffolk Coasts and Heaths Area of Outstanding Natural Beauty website (www.suffolkcoastandheaths.org/estuaries/useful-information).
- A further 500 were delivered to Eastern IFCA, for distribution amongst ports and marinas in the Wash and North Norfolk Coastline European Marine Site.
- 150 leaflets were distributed at the Ousefest family event day (North Norfolk)

After 2 months of circulation, a request for feedback on the leaflet was made to the Suffolk Coasts and Heaths AONB and EIFCA. Both organisations requested further supplies of the leaflet, as they were receiving feedback from harbour masters requesting fresh supplies of the leaflet.

Strengths

- Easy to read/digest – not too dull!
- Clear: not too scientific but not too dumbed down
- Eye-catching and colourful, species ID section was very interesting
- Learnt new facts on INS that weren't known before
- Learnt about biosecurity – wasn't previously aware of the simple steps
- Good to know about the app
- Good to see a leaflet just on this topic
- Good to learn about where INS came from

Weaknesses

- Not waterproof
- Could be more durable, so can be kept on-board
- Poster with some of the information would be good
- Include more app information
- No advice on who to contact if I find INS.

Discussion

Overall, the leaflet was very well received by the stakeholders targeted. This was reflected in the uptake of over 1000 leaflets in a 2 month period. The leaflet is considered to have successfully met its design remit as respondents overwhelmingly considered it to be clear, informative and useful. This method of communication should therefore be continued in future public engagement and outreach efforts, ensuring that the target audience is clearly defined to ensure relevance and take-up. The weaknesses of the leaflet listed by respondents provides good feedback and starting point to improve future versions. Requests for greater durability and a waterproof document further suggests that target stakeholders are both reading and retaining the leaflet. This indicated the use of this document for information and reference purposes in the desired members of the public.

4. Conclusions

Enabling local people to effectively identify and deal with INS represents one of the best ways to halt their spread. One of the main aims of Phase 2 was to increase awareness of the impacts of estuarine INS and promote the steps that can be taken to prevent their introduction and spread amongst key stakeholder groups.

This report details three very different communication methods designed to reach different stakeholders within the local community, particularly within recreational estuarine users. Each method uses a different approach to transfer knowledge to relevant to target groups. As this report shows, each different type of communication method was successful in its own right. However, used together to promote a key message they represent an extremely effective means of reaching a large number of people. It is important to continue to review the efficacy of communication methods by surveying the audiences they target. In this way, the techniques and media used can continue to evolve in order remain fresh and effective. Whilst online surveys are useful, they are not always the right method for obtaining this type of assessment data from the public. Future evaluations should feature both online, in person and written evaluations to collect as much useful data as possible.

In conclusion, we can confirm that the awareness raising activities trialled in this report have improved the capacity of local populations to tackle INS, as confirmed in this evaluation report.

5. Appendices

A1. SEFINS Workshop

1. In welk van de volgende domeinen bent u werkzaam?

- Overheid (gemeentelijk, provinciaal, gewestelijk, federaal...)
- Vzw
- Universiteit / hogeschool
- Bedrijf
- Student
- Deelname als burger
- Overige (specifieer)

2. Welk van volgende termen beschrijft het best uw werkzaamheden?

- Terreinbeheer : natuurbehoud
- Terreinbeheer : overage
- Onderzoek
- Beleid
- Overige (specifieer)

3. Heeft u uw algemene kennis over invasieve uitheemse soorten verrijkt?

- Neen
- Ja, gedeeltelijk
- Ja, Veel

4. Heeft u uw praktijkkennis over invasieve uitheemse soorten verrijkt ?

- Neen
- Ja, gedeeltelijk
- Ja, Veel

5. Over de workshop

	Helemaal akkoord	Akkoord	Neutraal	Niet akkoord	Helemaal niet akkoord
Het doel van de workshop was duidelijk	<input type="checkbox"/>				
De workshop was relevant	<input type="checkbox"/>				

De workshop was nuttig	<input type="checkbox"/>				
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6. Hoe zou u de workshop in het algemeen evalueren?

- Heel zwak
- Zwak
- Matig
- Goed
- Heel goed

7. Wat waren de voornaamste sterktes van het evenement?

8. Wat waren de voornaamste zwaktes van het evenement?

8. Wat waren de voornaamste zwaktes van het evenement?

9. Heeft u overige opmerkingen?
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9. Heeft u overige opmerkingen?

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U heeft de enquête beantwoord

Dank u voor uw tijd!

A2. Marina outreach

1. Merci de sélectionner le type de structure pour laquelle vous travaillez:

- Collectivité locale
- Association
- Université
- Entreprise privée
- Port
- Autre (merci de préciser)
- Overige (specifieer)

2. Combien de connaissances sur les Espèces Exotiques Envahissantes (EEE) avez-vous acquis?

- Aucune
- Quelques unes
- Beaucoup

3. Combien de connaissances pratiques avez-vous acquis?

- Aucune
- Quelques unes
- Beaucoup

4. Si vous avez participé à une activité d'information

	complètement d'accord	d'accord	neutre	Pas d'accord	Complètement pas d'accord
L'objectif est clair	<input type="checkbox"/>				
Les elements présentés étaient pertinents	<input type="checkbox"/>				
Les elements présentés étaient utiles	<input type="checkbox"/>				

5. Quelle note globale donneriez-vous à cette activité d'information ?

- Peu satisfaisant
- Satisfaisant
- Moyen
- Bon

Très bon

6. Quels étaient les points forts de cette activité ?

7. Quels étaient faiblesses ?

8. Avez-vous des commentaires ?

Merci pour votre temps!