



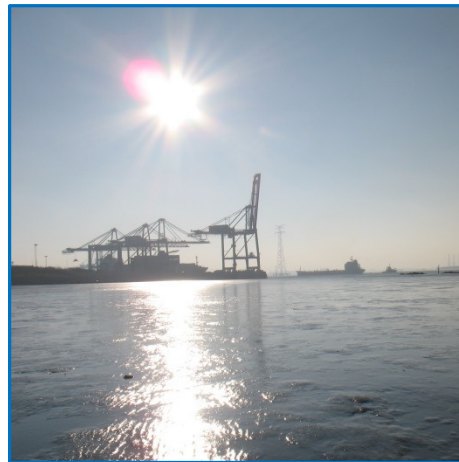
INTERREG IVA 2 Mers Seas Zeeën Programme

Cluster project **SEFINS**

Safeguarding the Environment From Invasive Non-native Species

## Work Package 3:

### Communication and Awareness Raising



*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.

August 2015

## Contents

---

Contents .....	3
Introduction.....	4
Common definition of objectives and means .....	5
Creation of communication and awareness raising tools .....	6
Learning package.....	6
Development.....	6
Use.....	6
Smartphone App 'That's Invasive!' .....	6
Development.....	6
The SEFINS update.....	8
Use.....	9
Estuarine INS Factsheets .....	12
SEFINS Website.....	14
Leaflet.....	16
Development.....	16
Use.....	16
World Oceans Day (B) .....	17
Factsheet for marina managers (Fr).....	18
Development.....	18
Use.....	18
Ousefest (UK).....	20
Stakeholder meeting with Natural England (UK) .....	21
Waarnemingen.be (B) .....	22
Summer campaign: communication and awareness raising.....	22
Raising awareness in recreational boaters awareness (French marinas) .....	22
Invasive plant workshop.....	23
SEFINS Webpages.....	<b>Error! Bookmark not defined.</b>
Conclusion .....	26
Appendices .....	28
A1. Summary of all events attended .....	28

## Introduction

---

In comparison to terrestrial or marine environments, estuarine areas are much less well studied when it comes to introduced species. Nonetheless, estuaries in Western Europe are considered to be hubs of industrial, recreational and/or residential activities, while at the same time being of high ecological value. Combined, these elements are likely to facilitate the introduction of invasive non-native species (INS), with all of the above fields being potentially susceptible to their impacts.

Information and prevention are therefore the best ways to limit these risks and potential impacts. Thus, the SEFINS project aimed to implement tools and awareness actions, particularly to marina users, in order to consider this issue and thus reduce these impacts. This complements additional work on creating INS inventories and acquiring and sharing knowledge.

In this report we showcase the different tools created by the SEFINS partnership and the actions implemented by the Partners to inform the target audience about INS.

## Common definition of objectives and means

---

Action 3.1 within this Work Package was an analysis of the efficacy of different training approaches in order to create a learning package for priority estuarine users, designed to embed the ‘prevention not cure’ approach. The partners met in Arras (France) on February 4<sup>th</sup> 2015 to share knowledge and experience. The meeting objectives were to agree on the target audience, the key message, the tools needed, the division of the tasks and a timeline.

After discussion between Project Partners and input from Associate Partners, it was agreed to focus on the recreational users of estuaries, with a priority message of “report and prevent”.

This was followed with further discussions on the most effective communication methods and dissemination media drawing on the experience of each Partner and Associate Partner. This was combined with input from relevant stakeholders in order to produce targeted presentations and supporting materials in three languages. It was decided that INBO and VLIZ would update the SEFINS webpages ([www.sefins.eu](http://www.sefins.eu)) during spring 2015 to include new information and communication materials. The INS smartphone app created as part of the previous Interreg IVA 2 Seas project RINSE would be updated by NCC to include estuarine INS. CPIE would make a training tool box with tools collected from each of the Partners. Partners also agreed to jointly create a leaflet on estuarine INS specifically targeting recreational boaters with the message “Check, Clean, Dry”. CPIE would be responsible for the design and production of the leaflet (in three languages) with all Partners and Associate Partners distributing it to the relevant audiences.

Action 3.2 was a summer campaign across the 2 Seas area with the aim of increasing awareness and stimulating interest in estuarine INS via meetings with decision makers, workshops and materials produced through Action 3.1.

A second meeting was held in Oostende (Belgium) on 15<sup>th</sup> April, in order to discuss Work Package progress and make any necessary modifications to input and timelines before the start of the summer campaign. After this meeting, further implementation of Work Package 3 was achieved via email exchange between partners and use of online file sharing technology.

## Creation of communication and awareness raising tools

---

### Learning package

Led by CPIE Val d'Authie with contributions from all Project Partners

#### DEVELOPMENT

CPIE were tasked to collect different elements useful for information actions from each of the Project Partners. Thus, each Partner provided pictures, diagrams or documents that could be shared to raise awareness of INS within the target audience. Following receipt of these items, CPIE sorted and ranked them in order to facilitate their use by Partners.

#### USE

The documents can be used by all Partners to create informative materials (Powerpoint presentations, flyers, workshops etc.) needed depending on the audience or the type of intervention. These documents were used in particular to create the boaters leaflet.

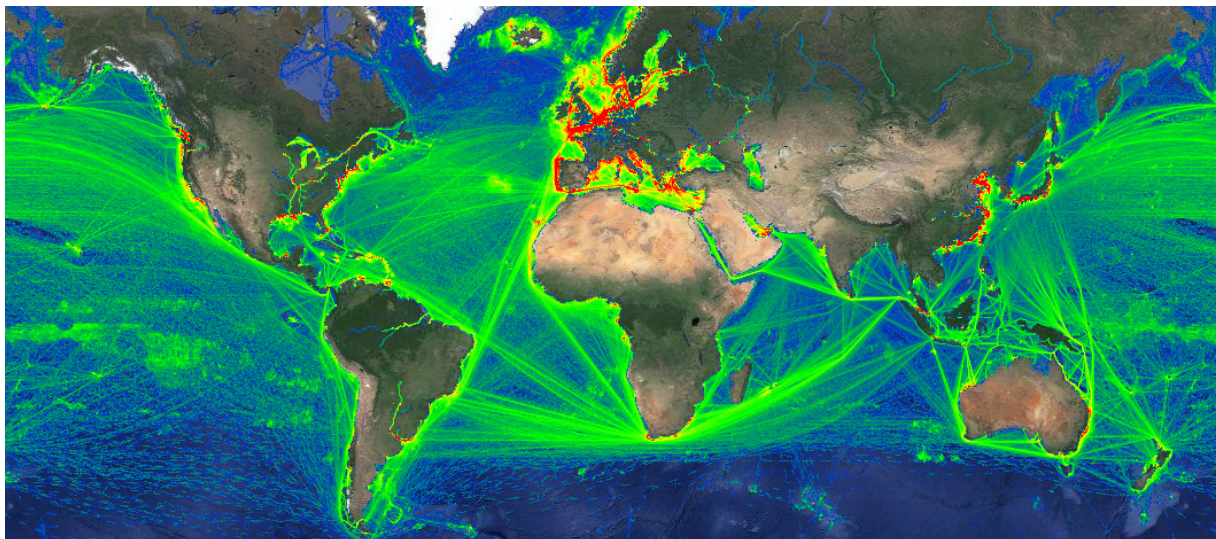


Figure 1. Example of training material (map of maritime routes showing the risks of invasion).

### Smartphone App 'That's Invasive!'

Led by NCC with contributions from all Project and Associate Partners.

#### DEVELOPMENT

The smartphone app 'That's Invasive' was commissioned as part of a previous Interreg IVA 2 Seas project called RINSE (Reducing the Impact of Invasive Non-native Species). The app was developed to allow a wide range of users to identify, photograph and record 35 different terrestrial and freshwater

INS present or likely to become present across the 2 seas area. It was designed to be an effective tool to capture up to date, accurate distribution data on invasive species which could be used by all member countries in future INS management plans.

The species profiles were developed using a combination of literature reviews and expert knowledge from within the RINSE partnership. Key features of the app include:

- Users can create their own iRecord account.
- Each record is submitted with a photograph, allowing verification.
- Photographs are “geo-tagged” ensuring an accurate location is submitted with each record using the in-built GPS on smartphones.
- Records are stored on the phone when recording in areas with no signal. These can then be uploaded in bulk at a later date.
- Available in three different languages (Dutch, English and French) within the 2 Seas region.
- Each species has a detailed profile, highlighting key ID features, biology and impacts on the environment.
- Each species has a gallery of images to aid with the identification.
- Each species has a list of potential “confusion species” to help further with the correct identification, including a photo gallery.

The app successfully engaged the target audiences of surveyors and contractors, wildlife managers and the general public in recording invasive species using this novel technology. It was released in English, French and Dutch via iTunes and Google Play within the 2 Seas area. At the end of the RINSE project, the app had been downloaded 405 times.

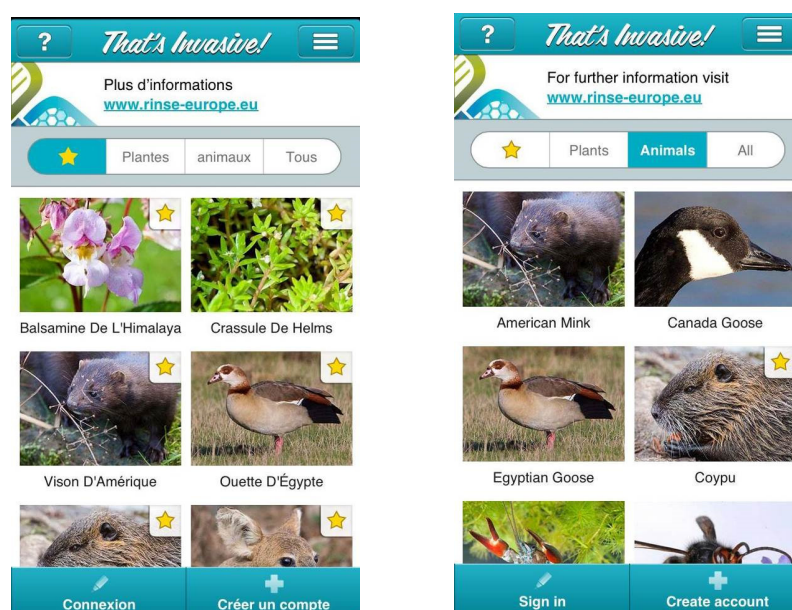


Figure 2. Screenshot of 'That's Invasive!' homepage (French and English).

## THE SEFINS UPDATE

The SEFINS project aims to build upon the RINSE legacy and move forward with INS monitoring and public engagement. In order to maintain the relevance of 'That's Invasive!' and ensure it remains current, SEFINS aimed to add three estuarine species to the app to enhance data gathering capacity within the under-recorded estuarine environment.

After discussions between Project and Associate Partners at development meetings in February and April and via email, NCC created a species shortlist based on prevalence, environmental impact and suitability for monitoring by citizen science. Species considered to be rare, difficult to identify or exclusively submarine were excluded. This shortlist was circulated to experts working in the field of INS to confirm species relevance and ensure accuracy. Arjan Gittenberger (Gimaris) and Sander Wijnhoven (NIOZ) provided advice which allowed 5 plant and invertebrate species to emerge as priorities for inclusion within the app.

The original app developers Nature Locator (Bristol University, UK) were commissioned by NCC to perform the SEFINS species update. After consultation, it was found to be possible to include all five shortlisted species in the update, expanding on the original target of three new species. The new estuarine species are:

Japanese shore crab (*Hemigrapsus sanguineus*)

Quagga mussel (*Dreissena rostriformis bugensis*)

Tree groundsel (*Baccharis halimifolia*)

Buttonweed (*Cotula coronopifolia*)

Wireweed (*Sargassum muticum*)

NCC performed literature reviews and combined this information with the knowledge and experience of the SEFINS Partners to create the species listings and source accurate, high quality images for the update. The species listings were translated into Dutch and French by the Partners and uploaded to the app by Nature Locator.



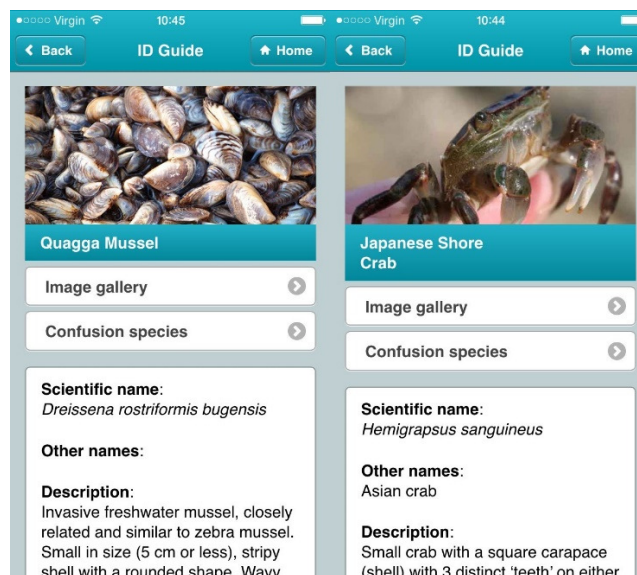
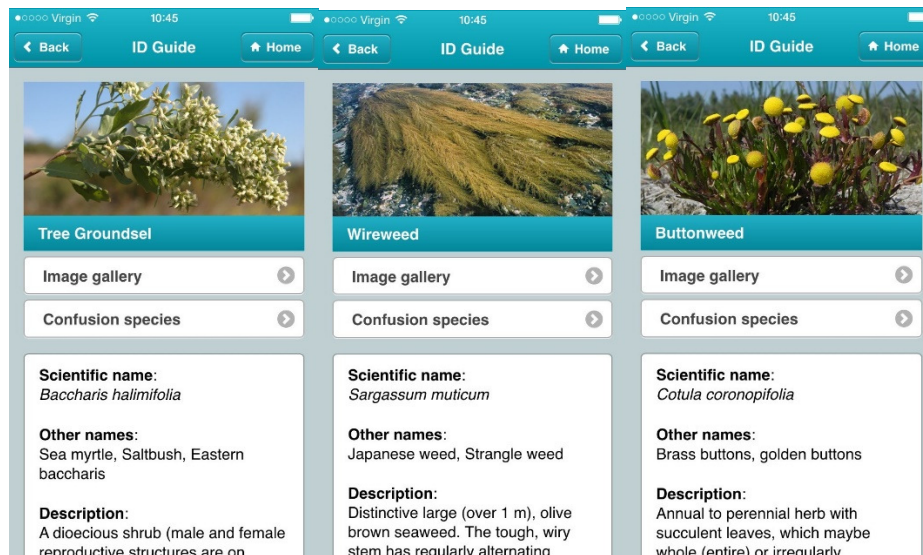


Figure 3. App listings for five new estuarine species.

During this update, app functionality, operating errors and bugs were collated from app users by NCC. A spreadsheet detailing these issues was sent to Nature Locator for review as part of the ongoing maintenance and content enhancement of the app. Prior to the SEFINS update, 'That's Invasive!' was only available for download within the 2 Seas regions of Belgium, France, the Netherlands and the UK. Widespread publicity of the app via scientific publications, presentations at international conferences and the overall success of the RINSE project generated interest in 'That's Invasive!' beyond these countries. Availability of the app was therefore expanded and the English version is now available for download in Denmark, Germany and Ireland.

## USE

Since the SEFINS update was released in July 2015, the app has been widely promoted online through news features on the SEFINS and GB NNSS websites, via social media and as a VLIZ news item (on the homepage, INS website and newsletter). A flyer announcing the update has also been circulated to

local action groups in the Norfolk area. Since the last review at the end of the RINSE project, 'That's Invasive!' has been downloaded a further 559 times, bringing total downloads to 974.

The design and development of the app in three different languages allows 'That's Invasive!' to be a truly cross-border tool. The new estuarine INS distribution data obtained through the app will be available for the four SEFINS countries and could be used in the development of future management strategies in these overlooked areas. It is hoped that continued promotion of the app to the general public, estuarine users and recreational boaters in particular will further increase public awareness of INS, their associated problems and the importance of biological recording. Enabling members of the public to record data on the environment surrounding them will also promote ownership of these areas and the INS issues they face. In this manner, it is hoped the app will continue to produce data and remain sustainable and relevant beyond the end of SEFINS.

Furthermore, by engaging the general public in 'citizen science', the App will increase public awareness of invasive non-native species, their associated problems and the importance of biological recording.

During Phase 2, an article analyzing and reviewing "That's Invasive!" was published in a scientific journal, underlining the important role this technology plays in generating high quality data from citizen science. The full citation for the paper is listed below:

Adriaens, T., Sutton-Croft, M., Owen, K., Brosens, D., van Valkenburg, J., Kilbey, D., Groom, Q., Ehmig, C., Therkow, F., Van Hende, P., and Schneider, K. (2015). Trying to engage the crowd in recording invasive alien species in Europe: experiences from two smartphone applications in northwest Europe. *Management of Biological Invasions* 6 (2): 215-225.

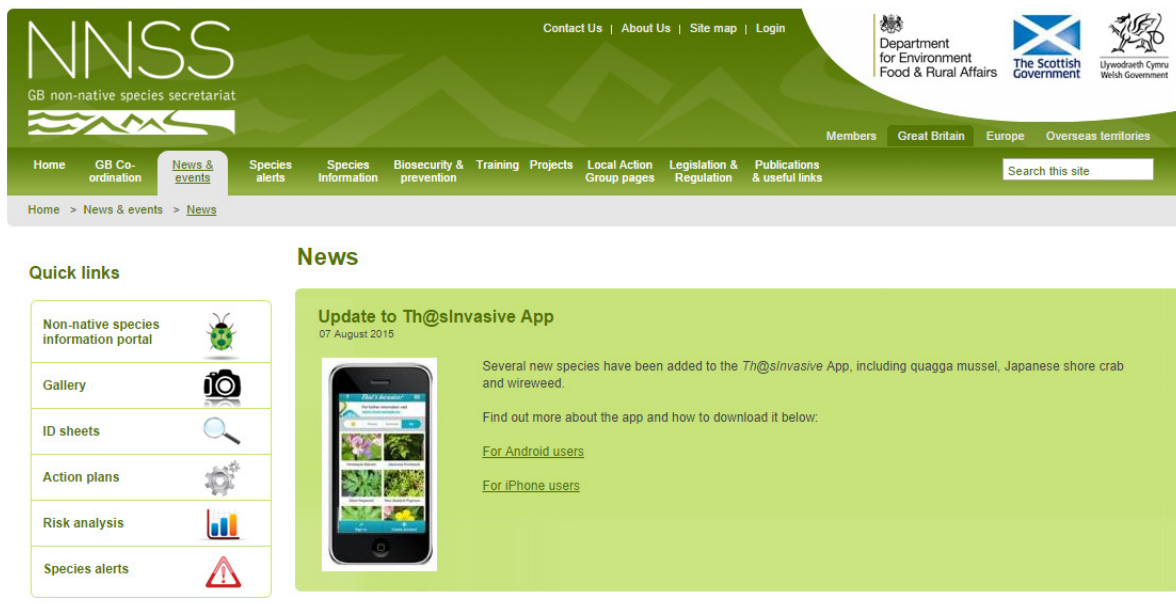


Figure 4. News article on the release of 'That's Invasive!' update on Great Britain non-native species secretariat ([www.nonnativespecies.org/news](http://www.nonnativespecies.org/news)).

The image shows a screenshot of the Norfolk Non-native Species Initiative Facebook page. At the top, the page name and navigation tabs (Page, Messages, Notifications, Insights, Publishing Tools) are visible. The cover photo features a close-up of a woodchuck with the text 'Norfolk Non-native Species Initiative' and 'Norfolk Non-native Species Initiative Non-Profit Organization'. Below the cover, the page statistics show 181 likes and 449 post reach. A 'Find New Customers' section is present. The 'ABOUT' section lists the location as Norwich, Norfolk, and provides a phone number and website link. The 'PHOTO 3' section displays a grid of images related to invasive species, including a woodchuck, a blue crab, and a striped bass. The main post, published by Katy Owen on November 4 at 11:19am, announces the update to the 'That's Invasive!' app, highlighting the inclusion of new estuarine species. The post includes a promotional graphic for the app, which is compatible with iPhone and Android. The graphic text reads: 'That's Invasive! We need your help to turn the tide on alien invaders! That's Invasive! contains all the information you need to ID & report over 35 invasive non-native species. NOW INCLUDING ESTUARINE SPECIES! SUPPORTED BY Norfolk County Council, Norfolk Wildlife Trust, Norfolk Species Initiative, Norfolk A.S. Trust, and Norfolk County Council.' The post shows 34 people reached and 1 share.

Figure 5. Social media promotion of the release of 'That's Invasive!' update on the Norfolk Non-Native Species Initiative Facebook page ([www.facebook.com/NorfolkInvasives](http://www.facebook.com/NorfolkInvasives))



Figure 6. Flyer distributed at biodiversity events promoting the release of 'That's Invasive!' update

## Estuarine INS Factsheets

Led by NCC with contributions from all Project Partners

The high quality information collated for the app was summarized to produce a series of eye-catching and informative factsheets containing easily digestible key facts on five estuarine INS. The factsheets were designed to be equally effective in leaflet or poster size, and could be used in the future as educational signs permanently placed in high risk areas. The factsheets are currently available online in English and French via the SEFINS or Suffolk Coast and Heaths Area of Outstanding Natural Beauty websites. The pdf documents were also sent local stakeholders to be freely disseminated via their preferred communication medium. The documents were well received and will be used in the future during local community training and outreach events.

Estuarine Invaders - *Hemigrapsus sanguineus*

## Japanese shore crab

**AKA Asian crab**



Small crab with a square carapace (shell) and 3 distinct 'teeth' on either side. Colour varies from orange-brown to purple to greenish-black, with banding on the walking legs and red spots on the pincers (claws). Native to the western Pacific Ocean, it arrived in the UK in ballast water and attached to boat hulls.



**Key Facts**

- Small size (max 5 cm)
- Red spots on the claws
- Found on shorelines, estuaries, mussel beds & oyster reefs
- Pushes out native crab species
- Damages oyster & mussel populations

**Don't confuse it with...**  
Common green shore crab (*Carcinus maenas*)

- Harmless native species
- 5 short teeth behind each eye on the carapace
- 3 undulations between each eye

**Habitat**  
Shorelines, estuaries, mussel beds, oyster reefs.

**Impacts**  
Reaches high numbers, outcompetes native crabs for food and space. Damages mussel and oyster populations.

**REPORT IT - STOP THE SPREAD**  
Use the free smartphone app 'That's Invasive!' to ID and report invasive species.

Safeguarding the Environment From Invasive Non-Native Species [www.sefins.eu](http://www.sefins.eu)

Estuarine Invaders - *Cotula coronopifolia*

## Buttonweed

**AKA brass buttons, golden buttons**



Annual to perennial herb, can be upright or creeping. Succulent leaves, can be whole or dissected. Flower heads are bright yellow and about 1 cm across, resembling buttons. Native to southern Africa, spread by seeds attached to people or animals, and in the water.



**Key Facts**

- Bright yellow flower heads look like buttons
- Plants can be upright or creeping
- Increasing presence in the North Sea area
- Pushes out native pioneer plant species

**Don't confuse it with...**  
Nodding bur-marigold (*Bidens cernua*)

- Found in same habitat
- Also has yellow flowers
- Flower heads sometimes face downwards, hence 'nodding'

**Habitat**  
Nutrient rich estuarine mudflats.

**Impacts**  
Competes with native species and dominates local areas.

**REPORT IT - STOP THE SPREAD**  
Use the free smartphone app 'That's Invasive!' to ID and report invasive species.

Safeguarding the Environment From Invasive Non-Native Species [www.sefins.eu](http://www.sefins.eu)

Figure 7. Informative factsheets produced for Japanese shore crab and buttonweed.

## SEFINS Website

Led by INBO and VLIZ, with contributions from all Project Partners

Given the short term nature of the project, it was chosen to showcase SEFINS as a webpage on the RINSE website instead of creating an entirely new page. This capitalizes on the web traffic already accessing the RINSE site and maximizes the potential to engage with this audience, whilst also demonstrating how SEFINS builds on the results achieved by RINSE. The pages describe the SEFINS project in general, outlining project background and objectives and introducing the project Partners. It also provides links to information and publications produced by SEFINS, including magazines, brochures, leaflets and workshop media.

The image displays two screenshots of the SEFINS website hosted on the RINSE project website. The top screenshot shows the 'Conference' page, featuring a navigation menu on the left, a header with logos (RINSE, invexo, Meno) and a language selector. The main content area is titled 'Conference' and features a banner for the 'SEFINS Opening Conference - 24 September 2014 at OPEN (Norwich, UK)'. Below the banner, there is text describing the event, including the theme 'Bridging the Gap: Working together to tackle invasive non-native species in Europe' and details about the event's focus on risk management and citizen science. The bottom screenshot shows the 'SEFINS Resources' page, featuring a banner for 'Invasive non-native species: Japanese shore crab (Hemigrapsus sanguineus)' and a section for 'That's Invasive!', which promotes a free smartphone app for identifying invasive species. The app is shown on an iPhone and an Android phone, and the text describes its features, including an image gallery and ID tips.

Figure 8. SEFINS webpages hosted on the RINSE project website

In total, the SEFINS webpages have been viewed over 27,000 times since the beginning of Activities. Just over 70% of views were from visitors returning to the site, whilst new views represented almost 30% (Figure 19). This indicates that the project has succeeded in maintaining interest with frequent updates, interesting content and useful INS data and information.

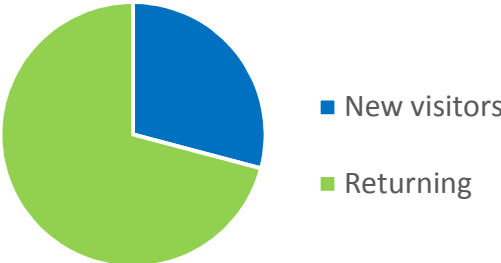


Figure 9 – Views of the SEFINS webpages

The SEFINS cluster has also succeeded in engaging with residents of the 2 Seas Area. The majority of people viewing the webpages are located in the UK (48%), followed by Belgium (16%), France (9%) and the Netherlands (4%). Dominance by UK viewers over other Member States is most likely due to language issues, as the webpages are currently only available in English. Increasing accessibility of Cluster webpages through addition of French and Dutch areas is something which will be considered in future project work. Interestingly, the SEFINS webpages have also been viewed by audiences outside of the 2 Seas area, demonstrating the reach of the Cluster project and the international relevance of the work conducted. US viewers were the fourth most frequent visitors to the site, representing nearly 5% of the audience. Viewers were also located in Brazil (3%), Ireland (2%), Spain (2%), Germany (2%), Italy (1%) and India (1%).

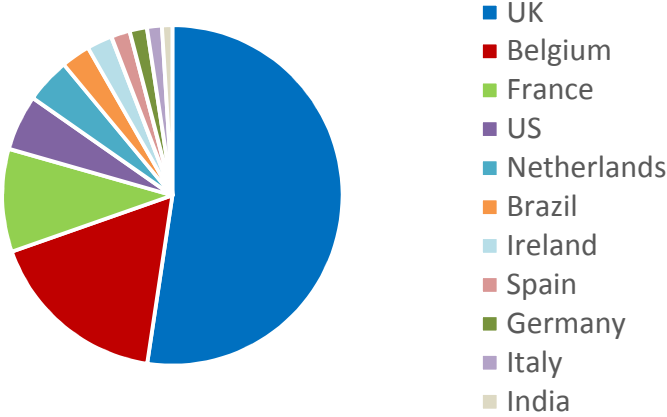


Figure 10 –SEFINS webpages audience

## Leaflet

Led by CPIE Val d'Authie with contributions from all Project and Associate Partners.

### DEVELOPMENT

After discussions between Partners, it was decided that a leaflet would be an effective way to raise public awareness of invasive non-native species (INS) in estuaries. It is an easily accessible and popular way to inform readers about these particular species, the threats they pose to human activities and the local environment, their mode of introduction and invasion, and the biosecurity measures available to prevent and limit their spread. Three species of INS already present on the coasts of the North Sea and the English Channel are described in the document, including ID tips and information on the problems they cause.

The leaflet was created in consultation with all Partners and coordinated by CPIE Val d'Authie who also designed the page layout of the document. A fold-out leaflet style was chosen to make the publication stand out from the more typical book style leaflets. An English draft was sent to all partners for checking and corrections. After several exchanges and improvements, a final English version was agreed. The leaflet content was translated into Dutch by Partners in Belgium and the Netherlands, and into French by CPIE. CPIE then arranged publication of the leaflet in each language and delivery to each project Partner in time for dissemination during the summer campaign.



Figure 11. Fold out leaflet format (Katy Owen)

### USE

The leaflet was used by the partners on several occasion during the actions implemented as part of the summer campaign. It was also showcased as a news item on the VLIZ homepage, and is available for download on the SEFINS, VLIZ and CPIE Val d'Authie websites.



- 500 leaflets (English) were delivered to harbour masters at 20 Suffolk marinas and sailing clubs, providing comprehensive coverage of the Suffolk coastline. The leaflet is also available online for download at the Suffolk Coasts and Heaths Area of Outstanding Natural Beauty website ([www.suffolkcoastandheaths.org/estuaries/useful-information](http://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)
- 600 leaflets were disseminated among 12 yacht clubs (representing 3553 berths) along the Flemish coast (50 leaflets each). These were accompanied by a letter addressed to harbour masters outlining their purpose and the aims of SEFINS.
- 500 leaflets were disseminated among 5 marinas along the French north coast
- Leaflets were displayed at the World Oceans Day in Ostend on 6<sup>th</sup> June (see below)
- Leaflets were displayed at the entrance hall of the ILVO offices in Ostend
- Leaflets were displayed at the entrance hall of the VLIZ offices
- Leaflets were displayed at the entrance hall of the INBO offices
- Leaflets were displayed at the entrance hall of CPIE Val d’Authie and CPIE Flandre Maritime
- Leaflets were disseminated among field staff en volunteers involved in surveying and guided tours of Natuurmonumenten and Het Zeeuwse Landschap



Figure 12 – Leaflet (Bram D’hondt)

## World Oceans Day (B)

World Oceans Day is the United Nations-recognized day of ocean celebration and action, held each year in June.

Within this framework, VLIZ organized the Sea Festival ‘ZOUTBAD’ on Saturday 6 June 2015 at the cultural center of ‘de Grote Post’ in Ostend, and on Sunday 7 June at the natural history museum in

Brussels. The program included underwater films, lectures, debates, information booths, thematic food stands, and various workshops. The workshop in Ostend was attended by 234 people. As an associate partner, VLIZ represented the SEFINS partnership, also displaying and disseminating the leaflet at this event.



Figure 13 – Information booths at World Oceans Day (Ostend, 6 June 2015). Staff members of VLIZ with the SEFINS leaflet on the right (© Bram D'hondt).

## Factsheet for marina managers (Fr)

### DEVELOPMENT

Following INS inventories conducted in the marina of Etaples-sur-mer as part of Work Package 2, the results were used to inform and advise boaters and managers in the area.

### USE

This communication and outreach helped to inform and engage boaters and marina managers on the ongoing study conducted within their workplace and recreational area. This helps to address the issue of INS using by using the familiar environment around them as a real local example. This work also provides template for how other areas can begin to use to the data acquired from SEFINS Phase 2 to inform local management on the ground in the 2 Seas region.

## Suivi des espèces exotiques envahissantes en baie de Canche

"Investing in your future"  
Cooperation programme  
2007-2013 Part financed by the European Union  
(European Regional Development Fund)

Dans le cadre du projet européen SEFINS (Safeguarding the Environment From Invasive Non-native Species) sur les espèces exotiques envahissantes\* dans les estuaires de la Manche et de la Mer du Nord, une étude a été menée en baie de Canche. Trois analyses ont été réalisées au niveau du port de plaisance d'Étaples sur Mer, pour inventorier les espèces animales et végétales présentes dans le port et sur les berges alentours.

Source : Géoportail

1 : site d'analyse des espèces dans le port  
2 et 3 : sites d'analyse des espèces sur les berges

\* Les espèces exotiques envahissantes sont des espèces introduites par l'homme, de manière volontaire ou accidentelle, dans des zones où elles n'étaient pas présentes naturellement avant. Souvent très résistantes, elles concurrencent les espèces locales pour les ressources en nutriment, en eau et en lumière, et peuvent causer leur disparition. Elles impactent ainsi la biodiversité des milieux naturels, et peuvent aussi, par leur prolifération, nuire aux activités humaines, comme la pêche, le tourisme, ou la navigation.

### I- Analyse des espèces sur les berges

Le 10 et 11 juin 2015, des chercheurs de l'Institut national d'océanographie des Pays-Bas (NIOZ) et des chargés d'étude du CPIE Val d'Authie ont inventoriés les espèces animales et végétales présentes sur les berges de la Canche au niveau du port de plaisance d'Étaples-sur-Mer, à la recherche d'espèces exotiques envahissantes. Deux sites ont été étudiés en rive gauche de la Canche, en aval et en amont du pont Rose. Sur chaque site, 16 quadrats d'un mètre-carré ont été placés aléatoirement le long d'un transect dans la zone intertidale du fleuve, et toutes les espèces présentes à l'intérieur ont été inventoriées et identifiées, sur place ou en laboratoire.

#### Prospection EEE en baie de Canche – 10 juin 2015 – Étaples sur Mer

Source : CPIE

Au total, 6 espèces végétales et 17 espèces animales ont pu être observées. Parmi elles, seule une espèce exotique envahissante a été trouvée. Il s'agit d'une espèce de balane originaire d'Australie : la balane croix de malte (*Elminius modestus*). Cet arthropode de la famille des crustacés est un petit coquillage qui se fixe sous les rochers dans la partie haute des zones côtières, près des zones d'eau saumâtre voire d'eau douce.

Cette espèce de balane australienne a été introduite en Europe par les salissures des coques des bateaux et par les eaux de ballast pendant la seconde guerre mondiale. Elle est apparue pour la première fois sur la côte sud du Royaume Uni, à Southampton, dans les années 1940. De là, elle s'est répandue rapidement dans l'Atlantique, la mer du Nord et la Manche.

### Elminius modestus (Balane croix de malte) – Étaples sur Mer – 10 juin 2015

Source : CPIE

En termes d'impacts sur l'habitat, cette espèce entre en compétition avec la balane locale : *Semibalanus balanoides*. Elle a aussi des effets sur les activités humaines car en aquaculture, elle se fixe sur les coquilles et les cages, et dans les ports, sur les coques des bateaux.

Pour limiter l'expansion de cette espèce invasive, lors de vos sorties en mer, veillez à :

- VERIFIER
- NETTOYER
- SECHER

tous vos équipements et vêtements entre chaque sortie en mer

Veillez aussi au carénage de votre bateau car un nettoyage régulier des coques et des ancres, ainsi que l'usage d'une peinture anti-fouling, réduiront les invasions.

### II- Analyse des espèces dans le port de plaisance

En mars 2015, des plaques d'échantillonnage ont été immergées sous les deux pontons est du port de plaisance d'Étaples pour collecter les espèces présentes dans le port et se fixant à ce type de support, et vérifier la présence ou l'absence d'espèces envahissantes. Après avoir passé 3 mois sous l'eau, ces échantillons ont été récoltés fin juin 2015 par un chercheur en biologie marine du groupe néerlandais GIMARIS (Gittenberger Marine Research, Inventory & Strategy) et des chargés d'étude du CPIE Val d'Authie. Aucune espèce, animale ou végétale, locales ou invasives, ne s'étaient installés sur les plaques d'échantillonnage lors de ce relevé. Avant d'émettre une hypothèse pour expliquer ce résultat, il a été décidé de laisser les échantillons sous l'eau 3 mois de plus, et d'effectuer un nouveau prélèvement en septembre 2015.

#### Pose des briques d'échantillonnage - Étaples sur Mer – 1<sup>er</sup> juin 2015

Source : CPIE

#### Récolte des échantillons après 3 mois sous l'eau - Étaples sur Mer – 1<sup>er</sup> juin 2015

Source : CPIE

Figure 14 – Factsheet for marina managers (CPIE Val d'Authie)

## Ousefest (UK)

This event was part of a project called the Ouse Washes Landscape Partnership. Ousefest was a large summer festival celebrating an area of Norfolk called the Ouse Washes and the surrounding areas. The Ouse Washes form an extensive network of wetland habitats, with areas of meadows, reedbeds and fens forming nature reserves in an otherwise predominantly arable landscape and representing important sanctuaries for rare plant and animal species. The area also contains tidal rivers and is prone to flooding by high tides from the nearby Wash estuary, and is also well used for many water-based recreational activities. This area is therefore considered vulnerable to invasion by estuarine INS, which would have devastating ecological and economic effects on these protected areas if they became established.

The festival was made up of different free events from 20<sup>th</sup> July to 2<sup>nd</sup> August at various locations across the area. As part of Ousefest, the Denver Festival was held at the Denver Sluice Complex on 28<sup>th</sup> July. The festival brought together different stakeholders including angling associations, the Environment Agency, RSPB, rowing club, theatre groups and local charities. Activities on the day included boat rides, face painting, rowing tours, badge making and interactive games. This range of participants and activities was designed to attract both local families as well as tourists holidaying in the area. Free shuttle buses were supplied to transport families from nearby towns and translation services were provided to ensure the large eastern European population present in the area were also welcomed and engaged in the events on offer.

SEFINS was represented at a stall hosted by NCC. A series of different INS specimens were on display, including crayfish, shrimp and mink. A wide range of information on INS likely to be present in the local area was supplied through leaflets and interactive displays. The SEFINS leaflet and branded USB sticks containing further information about the project were distributed and were well received by older visitors. Information on the app was also available, with one-to-one demonstrations provided for interested members of the public. This was particularly popular, as many participants were very interested in how to report INS they recognized from their local area. The stall engaged with younger visitors to the festival through an interactive game, where participants used bean bags to eradicate INS and restore native biodiversity. This also represented an effective means of communicating INS information to families with English as a second language. A short video of the event is available online at [www.youtube.com/watch?v=Xmp2FTCWko8](http://www.youtube.com/watch?v=Xmp2FTCWko8).

Over 350 members of the public attended the festival over a period of 6 hours, making it a very effective communication mechanism for raising awareness and increasing INS knowledge in the local area. The audience included many different generations, including children, teenagers and grandparents and therefore provided an opportunity to reach out multiple age groups and allowing them to learn together. Many of the stakeholders hosting displays at the event, such as the Environment Agency and the RSPB were also interested in the work of the SEFINS project, particularly in using the app as an ID tool in the field. Attendance at this event as part of the SEFINS summer campaign was therefore considered to be very successful in raising the profile of the expertise and cutting edge work conducted by SEFINS to local stakeholders



Figure 15. SEFINS outreach at Ousfest

### Stakeholder meeting with Natural England (UK)

Part of the SEFINS remit to raise awareness and stimulate interest in INS was to meet with decision makers. As a result, NCC arranged to meet with Natural England on 17 March. This organization advises the UK government on how best to protect and manage England’s nature and landscapes for both biodiversity and the people who use them. SEFINS representatives met with Tammy Smalley and Dawn Isaacs of the National Marine and Coast Management Team to discuss the work already conducted by SEFINS and the current aims and objectives of the project. INS in the Wash estuary were discussed and the need to promote development of management of estuarine species was agreed by both parties. Natural England were particularly interested in the monitoring schemes under trial in the Wash and the potential to continue these beyond the end of the project. This stakeholder was very interested in reading the full Work Package reports due to be produced at the end of the project, with a view to continuing some aspects and generating new stakeholder collaborations around INS in the Wash estuary in the future.

## Waarnemingen.be (B)

In Flanders, 'Waarnemingen.be' is an observation records portal that is widely used among nature enthusiasts and practitioners. It includes an early warning module which encompasses identification sheets of INS for data providers and area-specific INS alerts for practitioners. In analogy with the above initiatives, INBO and NVWA created and added *Baccharis halimifolia* to this module, which can be consulted through <http://waarnemingen.be/exo/be/nl/18441.pdf>.

Strikingly, there was a steep increase in the number of records of the species in 2015, although this does not represent an increase of grid cells where the species was recorded (figure below). There does seem to be an increased awareness of the species among recorders.

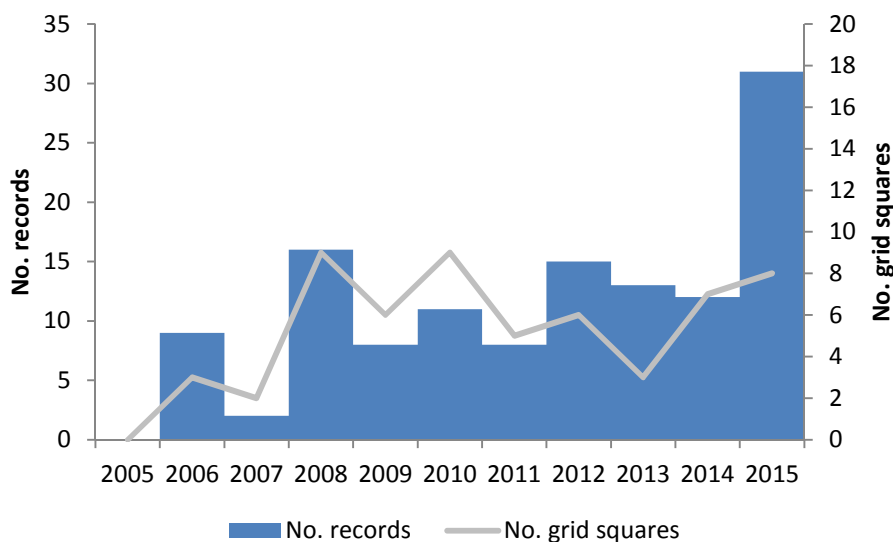


Figure 16. The number of observations of *B. halimifolia* in Waarnemingen.be through time.

## Summer campaign: communication and awareness raising

---

### Raising awareness in recreational boaters awareness (French marinas)

To raise INS awareness amongst users of marinas in the estuaries of northern France, CPIE Val d'Authie visited ports at Boulogne-sur-Mer and Etaples-sur-Mer. Staff were on hand to inform boat owners about common INS pathways of spread, particularly those linked to navigation and nautical practices. This campaign allowed open communication on the issue of INS introductions in estuaries, methods of introduction, impacts of invasion and how to control and prevent invasive species. The leaflet produced by the project was a particularly useful tool to help raise awareness in this environment.

At Boulogne-sur-Mer, 25 boaters (either alone or with their families) engaged with the INS campaign on 4 separate occasions. At Etaples-sur-Mer, 13 sailors engaged in INS awareness raising on 4 separate visits to the area.

This action was carried out in partnership with CPIE Flanders Maritime, for the ports of Dunkirk, Gravelines and Calais, and prepared in consultation with the heads of ports of the Côte d'Opale.



Figure 17. Marina of Boulogne-sur-Mer – 7 August 2015 (Morgane Barbier)

### **Invasive plant workshop**

In order to maximize the opportunity for cross-border cooperation provided by SEFINS, INBO (B) and NVWA (NL) organized a joint workshop on the management of INS plants within the cross-border delta of Scheldt-Meuse-Rhine. This one-day, Dutch-speaking workshop was held on 11 June at De Heen (The Netherlands), and was particularly aimed at bringing practitioners and scientists together. The morning program included four presentations and accompanying discussions, while excursions to two nearby nature reserves to discuss the INS issues present there were held as part of the afternoon program.

Twenty people attended the workshop. Afterwards, the presentations and pictures from the workshop were uploaded to the SEFINS webpage and disseminated among the participants.



**Datum** – 11 juni 2015

**Locatie** – [Akkermans Leisure & Golf](#), De Heen, A4 - afslag Steenberg, tussen Rotterdam (20 minuten) en Antwerpen (25 minuten)



Waar de Rijn, Maas en Schelde elkaar naderen, vinden we een veelheid van eilandjes, schiereilanden, zee- en rivierarmen. Met een uitzonderlijke natuur tot gevolg.

Al te vaak, echter, worden gestelde natuurdoelen in deze regio bemoeilijkt door het opduiken van invasieve uitheemse plantensoorten. In deze workshop bekijken we de noodzaak en de mogelijkheden tot een efficiënt beheer van deze zogenaamde 'exoten' in natuurherstel- en inrichtingsprojecten.

In deze workshop ligt de nadruk op een uitwisseling van praktijkkennis en -ervaringen. Terreinbeherende instanties uit zowel Vlaanderen en Nederland zijn dan ook van harte uitgenodigd deze workshop bij te wonen.

## PROGRAMMA

9:00 – 12:00 : Presentaties van beheerders en onderzoekers over praktijkervaringen met bestrijding van invasieve uitheemse planten

12:00 – 13:00 : Lunch

13:00 – 17:00 : Terreinbezoek aan twee locaties

Contact : Johan van Valkenburg ([j.l.c.h.vanvalkenburg@nvwa.nl](mailto:j.l.c.h.vanvalkenburg@nvwa.nl))



Figure 18. Invitation flyer for the invasive plant workshop





Figure 19. Participants of the Invasive Plant Workshop (© Tim Adriaens)



Figure 20. General introduction of the Invasive Plant Workshop by Johan van Valkenburg (© Tim Adriaens)



Figure 21 – Field excursion on the Invasive Plant Workshop (© Tim Adriaens)

## Conclusions

---

The aims and actions of Work Package 3 listed in the application form were fully completed during the lifetime of the project, despite the short implementation time.

The efficacy of different training approaches were discussed between all Partners, resulting in the production of an effective and useful set of tools to promote learning and knowledge transfer.

The project originally planned to produce eight different training materials to raise awareness and improve management of estuarine INS. In fact, more than ten different tools were created by the SEFINS Partners. These utilized various communication media and techniques, ranging from face-to-face interactions on a one-to-one basis, to leaflets distributed to a wide audience, to attendance at a wide range of events. This variety of methods was designed specifically to reach the widest possible target audience. The summer campaign allowed the materials and tools developed to be put into action in order to raise awareness of INS in estuaries across each of the four member countries.

Each of the materials developed during the project were designed in collaboration between the Project and/or Associate Partners to ensure that these tools can be used by each partner in their local areas and with their relevant stakeholders. The results achieved demonstrate the importance

working across borders with multi-partners to develop new ways of working and to move forward in meeting the challenges presented by invasive species.

The actions carried out in this Work Package have demonstrated the needs and expectations of beneficiaries relative to their lack of knowledge of estuarine INS, and thus the need to consider the continuation and development of actions undertaken in the framework of the SEFINS project.

## Appendices

---

### A1. Summary of all events attended

Event	Location	Date	Partner	Description	Attendance
World Oceans Day	Oostende (Be)	6&7 June 2015	VLIZ	United Nations recognized day of ocean celebration and action	234 people
Invasive Plant Workshop	De Heen (NL)	11 June 2015	INBO NVWA	Workshop for practitioners and scientists	22 people
Ousefest	Denver Sluice, Norfolk (UK)	28 July 2015	NCC	Family fun day to learn about local habitats and wildlife on the Ouse Washes landscape.	350 people
Summer campaign	Boulogne sur Mer, Etaples sur Mer, Dunkerque, Gravelines & Calais (Fr)	July and August 2015	CPIE Val d'Authie CPIE Flandre Maritime	Meeting with boaters regarding INS estuaries	90 people