Background

- RAPID LIFE – holistic management of Invasive Alien Species (IAS) in freshwater aquatic, riparian and coastal ecosystems

- 3 year EU LIFE project led by APHA with Natural England and Bristol Zoological Society

- 2017 - 2020

- Innovative approach to INNS management across England
The end is in sight!

Captive white-clawed crayfish carrying eggs

Photo credit: BZS
Aim

Protect freshwater aquatic, riparian and coastal biodiversity by embedding a coordinated, strategic and evidence-based approach to managing IAS across England whilst demonstrating the efficacy of this approach for replication across Europe.
Objectives

1) Establish regionally-based framework to deliver more effective IAS management
   - Regional INNS Management Plans (RIMPs)

2) Prevent introduction of novel IAS to target environments
   - Biosecurity awareness

3) Increase awareness and efficacy of GB-level early warning and rapid response systems

4) Eradicate and control established IAS in high-priority areas using strategic and best practice approaches

5) Share the exemplar approach throughout European and international networks
RAPID LIFE Project - Phases

1) Preparatory Phase

2) Delivery Phase

As well as the “AfterLIFE”!
Preparatory Phase (July 2017-Dec 2018) Completed

1) Biosecurity: support revision of biosecurity materials (mostly Check, Clean, Dry)

2) Create INNS Management Toolkit

3) Produce Regional INNS Management Plans (RIMPs) and link in supporting software (INNS Mapper)
What are RIMPs?

• Regional INNS Management Plans

• Integral part of the RAPID LIFE Project

• Aim of RIMPs and RAPID LIFE Project in general

  - Bridge the gap between high-level strategies (e.g. GB INNS strategy) and local stakeholders actions.
  - Provide strategic under-pinning to stakeholder actions.
The Purpose of the RIMPs

• To have 5 consistent RIMPs documents that will act as INNS management plans for each region

• People in a local/regional area are able to get location specific information that is relevant to them

• The 5 RIMPs will help INNS management across England to be more **coordinated and strategic**
What went into each RIMP?

• Identification of key regional stakeholders for partnerships/collaboration

• Identification of:
  – INNS pathways & associated stakeholders
  – Regional ‘hotspots’ for INNS introduction
  – Sites of high conservation value

• IAS management
  Black – PREVENTION
  Red – ERADICATE
  Amber/Green – LONG-TERM MANAGEMENT
RIMPs

• Now complete and available on RAPID web pages: www.nonnativespecies.org/rapid

• Minor amendments/additions to be carried out in February 2020

• Deadline: 5pm on 1st February 2020
Input from LAGs is essential to making the RIMPs fit for purpose!

WE WANT YOU!
INNS Mapper

• Web-based platform for submitting records, as well as reporting surveys and treatment of INNS in England

• Originally developed by Yorkshire Wildlife Trust and expanded through RAPID funding

• Bulk upload and download INNS data, shows presence and absence of INNS

• Available at ywt-data.org/inns-mapper
RAPID LIFE Project - Phases

1) Preparatory Phase

2) Delivery Phase

As well as the “AfterLIFE”!
Delivery Phase (Conservation Actions) Ongoing

- Practical IAS management demonstration projects
  - Large-scale (catchment) projects (2 areas)
  - Small-scale (sub-catchment) (3 areas)
  - Crayfish management – novel approaches

- Demonstrate use of biocontrol agents

- Biosecurity workshops/new signage/distribution points - facilitate behavioural change

- ‘Alert’ species/reporting workshops

Photo Credit: GBNNSS

Himalayan balsam
*Impatiens glandulifera*

Photo Credit: GBNNSS

Water primrose *Ludwigia grandiflora*
Waterbodies Accreditation Scheme

- AQUA (Aquatic Quality Award)
- Piloted by project partner BZS in South West region
- Reward water asset managers for good biosecurity
- In their interest for commercial and practical reasons
- 3 different levels of accreditation
- Aim to accredit over 60 waterbodies
- Hope to roll out scheme to other areas
What have you helped to achieve?

Biocontrol being carried out on Himalayan balsam at a RAPID LIFE site.

Photo credit: CABI
Achievements to date

BIOSECURITY AND AWARENESS RAISING

• Provided financial support to update and revise Check, Clean, Dry campaign

• Border biosecurity awareness raising posters in place at two ports

• One short animation produced, covers INNS issues and biosecurity

• Supported production of three biosecurity videos by The Green Blue

• Biosecurity resources (marine and freshwater) available online, tailored for range of different stakeholders
Achievements to date

**INNS MANAGEMENT**

- INNS Management toolkit completed and available online
- Resources on alert species & how to ID and report available online
- 5 Regional IAS Management Plans (RIMPs) published
- INNS Mapper expanded through RAPID funding

![Photo of a Red-eared Slider (Trachemys spp) in aquatic habitat.](Photo by Luis Garcia CC BY-SA 3.0)

Red-eared slider *Trachemys spp* – management covered in RAPID’s good practice guidance documents.
Achievements to date

DEMONSTRATION PROJECTS – practical management projects

• 2 catchment level projects controlling Japanese knotweed and Himalayan balsam completed

• 3 sub-catchment level projects working on other IAS competed (American skunk cabbage, floating pennywort and giant hogweed)
Achievements to date

DEMONSTRATION PROJECTS – biological control

• 13 sites with ongoing Japanese knotweed biocontrol

• 15 sites have ongoing Himalayan balsam biocontrol

Photo credit: John Musham

Rust fungus infecting Himalayan balsam

Psyllids on a Japanese knotweed plant
Achievements to date

DEMONSTRATION PROJECTS – crayfish

• 2,330 signal crayfish plus 12,500 hatchlings and eggs have been removed and humanely killed.

• 2 new ark sites for white clawed crayfish and supplementation of a 3rd

• Approx. 650+ white-clawed crayfish bred and reared at Bristol Zoo
  - 500+ released so far

Photo credit: BZS

Release of native white clawed crayfish at one of RAPID’s “ark” sites.

Photo credit: BZS

An invasive signal crayfish during a control operation
Achievements to date

BIOSECURITY AND AWARENESS RAISING

• Border biosecurity awareness raising at ports in 2018 and 2019
• One workshop on INNS and biosecurity held in Paris in 2018
• One conference held on INNSS and biosecurity in Concarneau in 2019
Achievements to date

BIOSECURITY AND AWARENESS RAISING

• Another int. workshop on INNS management in Brussels in Dec 2019
Some actions to complete by July 2020

• At least 30 biosecurity workshops delivered

• At least 5 estuary-level biosecurity plans produced

• At least 5 workshops supporting demonstrative management projects delivered

• 10 alert species awareness raising workshops delivered

• New network of 250+ distribution points for biosecurity materials across England established
Some actions to complete by July 2020

• 500 biosecurity messaging signs erected across England

• 60+ waterbodies in South West accredited for excellence in biosecurity with pilot scheme “AQUA”

• One end of project conference
So what have we learnt?
All projects face challenges!

American mink (*Mustela vison*) preying on British native wildlife (North Atlantic gannet)

Photo credit: John W Anderson
Lessons Learnt

• Plan timing of events wisely

• Be as organised as possible with project management and plan ahead for potential delays and problems

• Wildlife doesn’t always behave the way you want and can surprise you!

• Set aside funding for baseline surveys where needed (before deciding on sites)

• Need to work on geographic coverage
Lessons Learnt

• Be flexible and adapt to changing situations

• Assess feasibility of data sharing/access before commencing work

• Applying for government money is not straight-forward and more guidance often needed

• Communication is key and everyone needs to feel heard

• Expectation management
What next?
RAPID LIFE Project - Phases

1) Preparatory Phase

2) Delivery Phase

As well as the “AfterLIFE”!
After-LIFE

• APHA will oversee the After-LIFE plan for at least 5 years
  – safeguard project legacy and build on it

• APHA will be funding the monitoring of the project impacts
  and the maintenance of the webpages etc.

• APHA will monitor the implementation of RIMPs through
  regional workshops with feedback, as well as surveys

• APHA will try to map deployment of CCD biosecurity
  signage

• Where possible, continue and expand on work from RAPID
After-LIFE: going forward

• Update online materials (good practice management and other resources etc.)

• Review and update the RIMPs

• Run another workshop with French stakeholders to consolidate international networks

• Support CABI’s monitoring and maintenance of RAPID biological control sites
After-LIFE: going forward - AQUA

- Expand AQUA beyond the SW into other regions

- Review scheme and make updates where required to ensure it is fit for purpose

- Fund accreditors and the accreditation process into the future.
After-LIFE: going forward

- Maintain and update INNS Mapper – hopefully expand
- Continue crayfish work, plus monitoring and expansion
- Look into new possibilities and new potential projects
How well do you think we have done?

Measure all the things!
Want to know more?

• RAPID webpages: [www.nonnativespecies.org/rapid](http://www.nonnativespecies.org/rapid)

• INNS Mapper: [ywt-data.org/inns-mapper](http://ywt-data.org/inns-mapper)

• Contact: [alexia.fish@apha.gov.uk](mailto:alexia.fish@apha.gov.uk)

Photo credit: Carl D. Howe

American bullfrog *Lithobates catesbeianus*
Thank you so much for all of your help!

The invasive plant, parrot's feather, taking over a waterbody

Photo credit: GB NNSS
Any questions?

Photo credit: GB NNSS

Signal crayfish (*Pacifastacus leniusculus*)