

Defending our native wildlife against invasive species

River Avon

Source to Sea



**Hampshire & Isle of Wight
Wildlife Trust**
Protecting wildlife. Inspiring people.



Getting the data from here...



... to here



DAFOR

for Himalayan and orange balsam



m²

For Japanese knotweed, water fern, New Zealand pygmyweed, parrot's feather and creeping water primrose



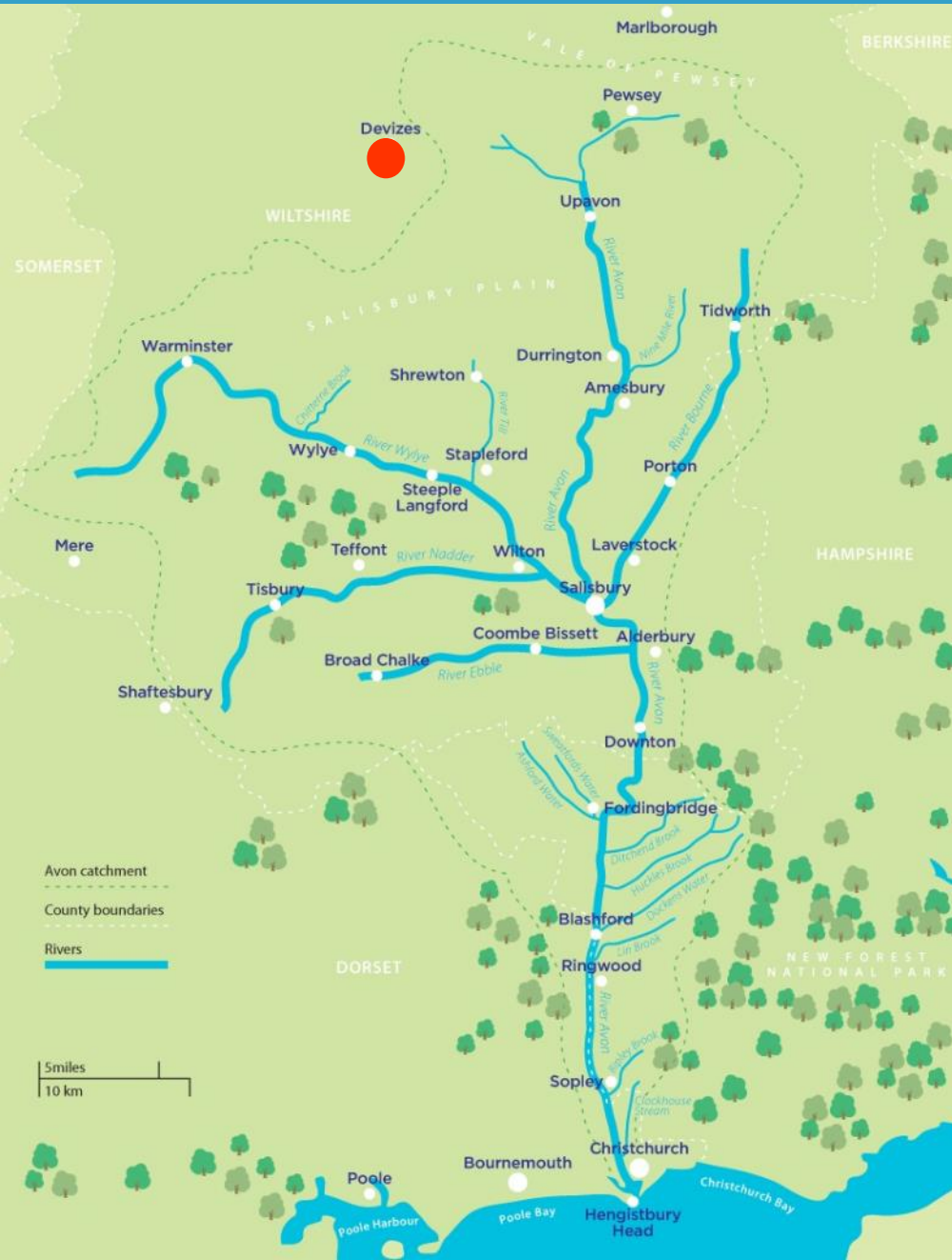


Number of plants
For giant hogweed
and American skunk
cabbage

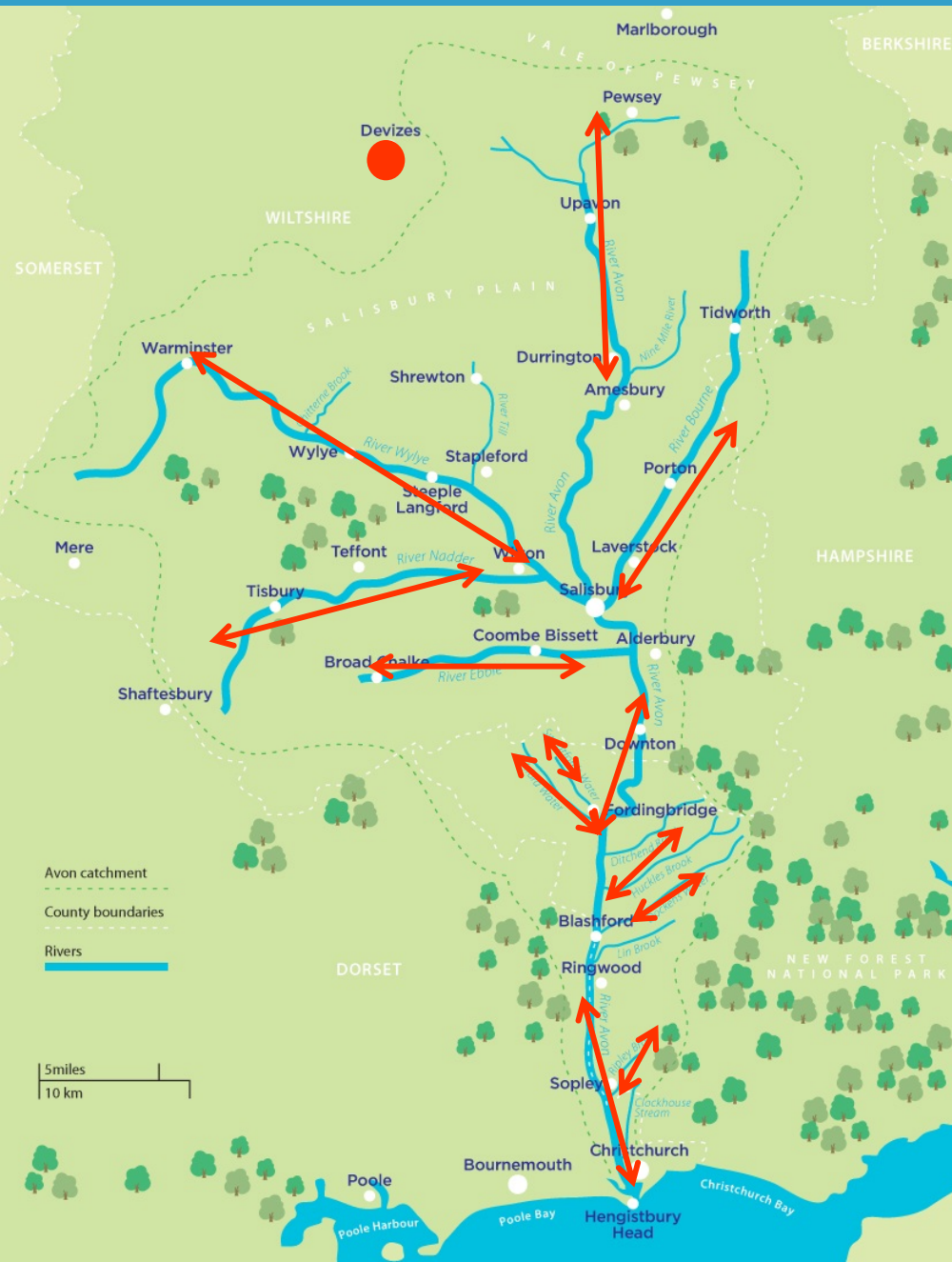
The Problem



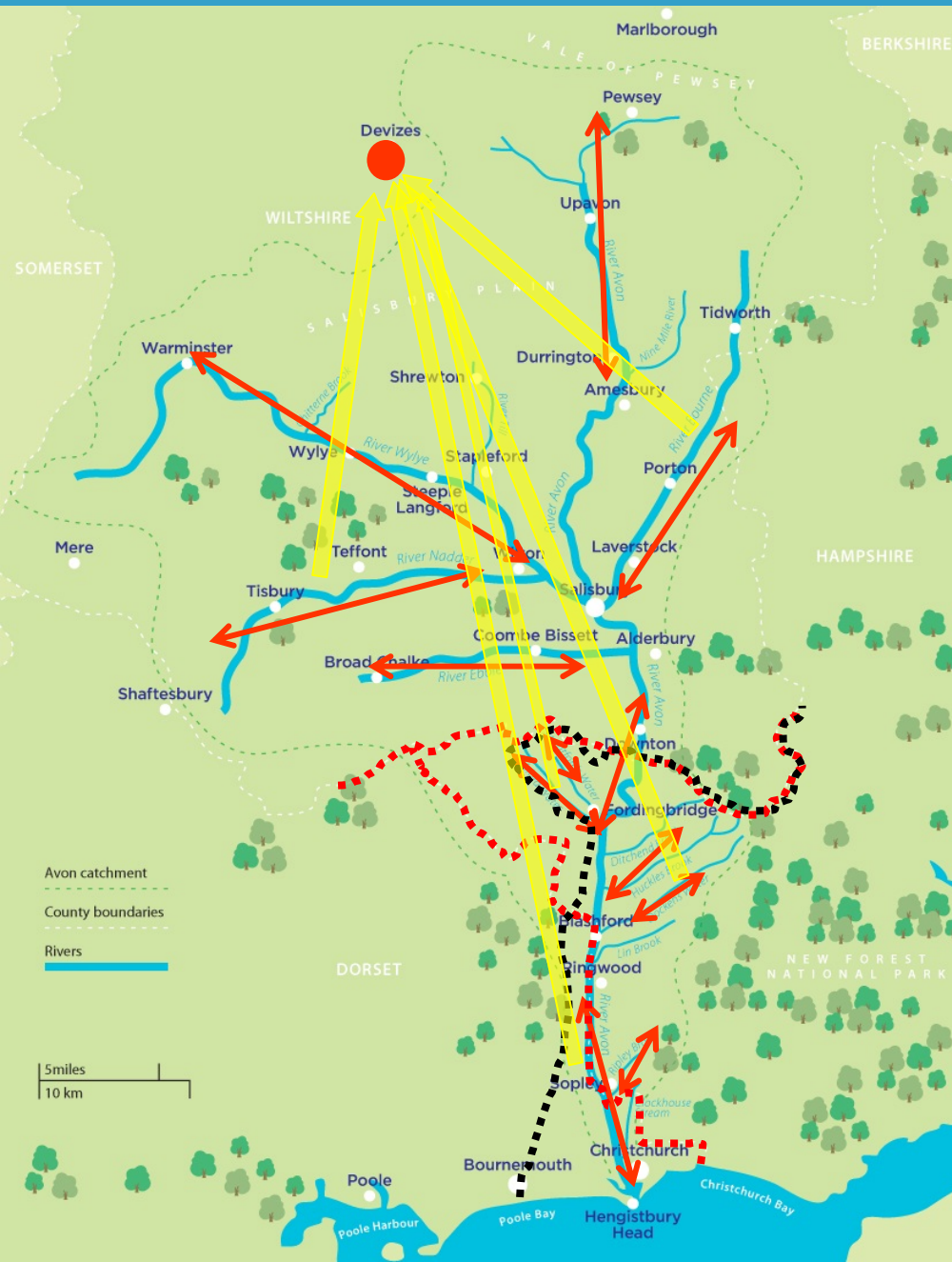
The Problem



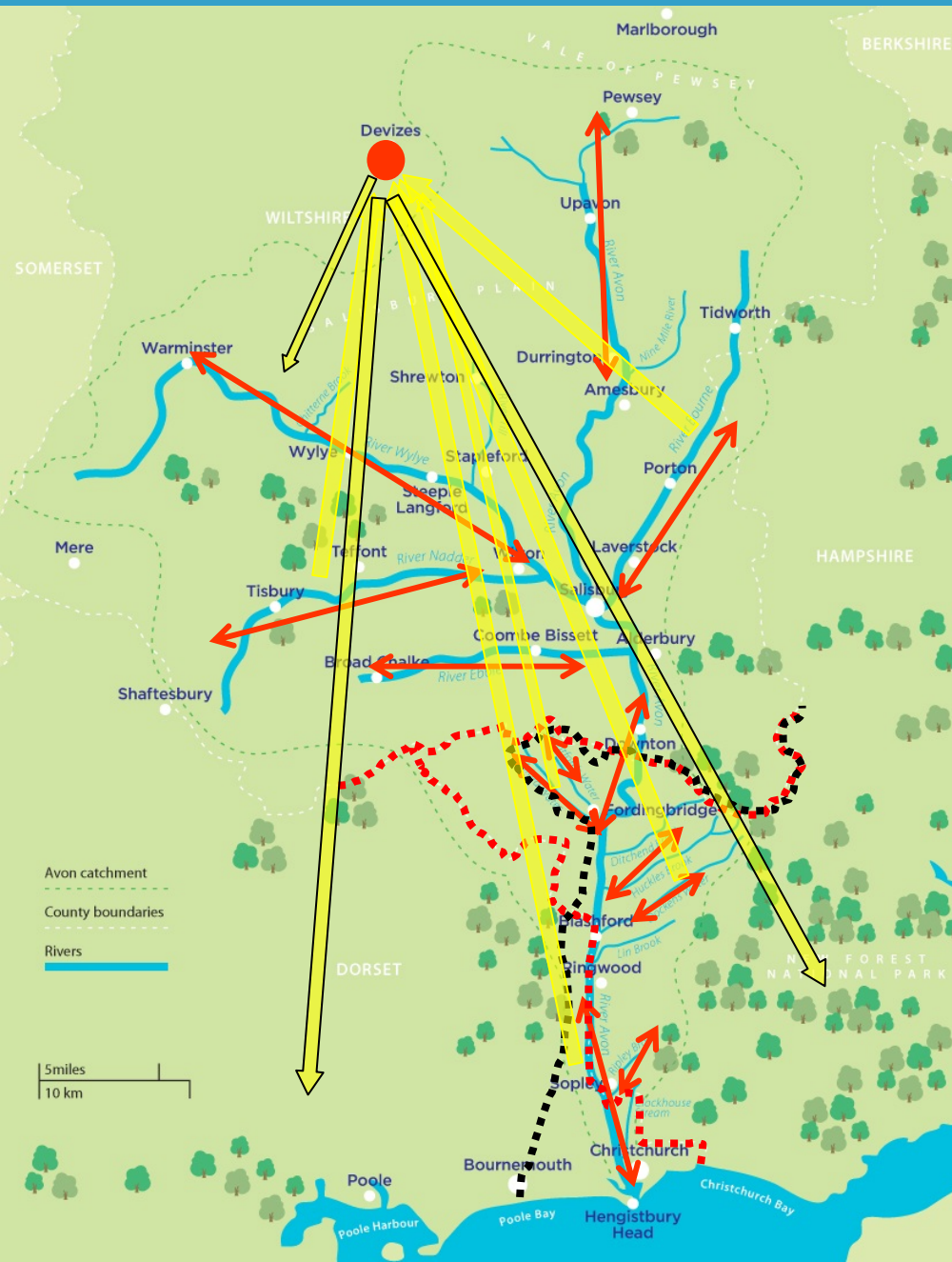
The Problem



The Problem



The Problem



The Solution- Living Record



User: Samantha Stork

Source to Sea project

[Log out](#)

[Records](#)

[Distribution
Maps](#)

[Excel
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[Options](#)

[Help](#)

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Records](#)

[Admin](#)

Subject my expertise

Survey 100m stretches of river bank. Use DAFOR for Himalayan Balsam, area for Japanese Knotweed and number for Giant Hogweed.

Area

River Avon catchment - Used for the Source to Sea project run by Wiltshire Wildlife Trust to survey the extent and abundance of invasive plants along the banks of the Avon and its tributaries.

Records dated in period to [Include records for 2012](#)

Records compiled by [extra options](#)

Height of map

[Enter Records](#)



Sort new records to of list

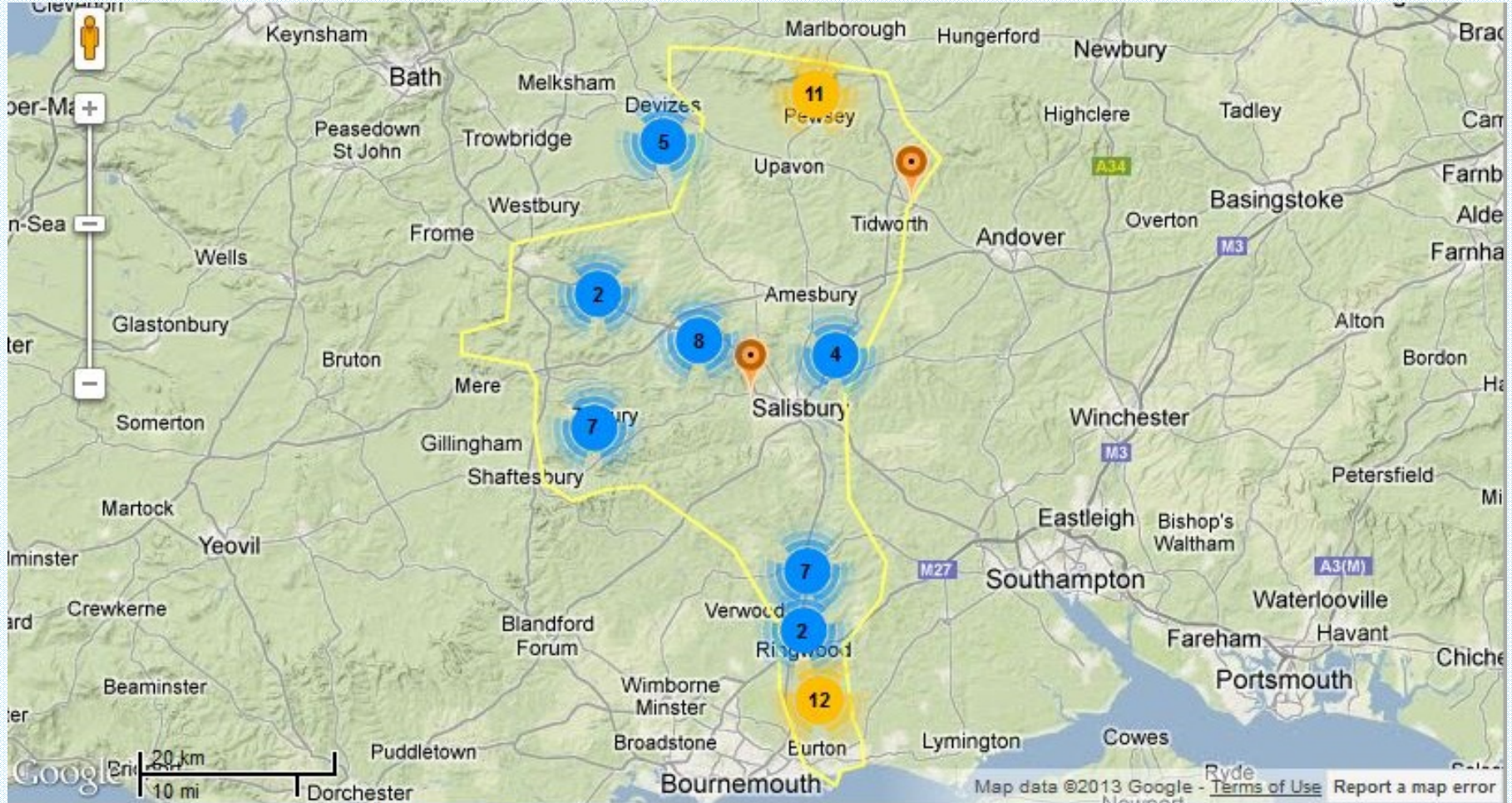
[Review my records for River Avon catchment](#)

[Possible problems with my records for River Avon catchment](#)

Please note that the way Living Record uses Google Maps has been updated.

To improve performance with large numbers of location markers, groups of markers are now shown as clusters. Click any cluster marker to zoom in to reveal the location markers.

If you do find any problems, please [Contact us](#).



Subject

EITHER - Select an existing location
Click a marker

OR - Add a new location
Step 1: Three ways to add a location marker to the map:
 1. Click the map near the location.
 2. Search for place name
 3. Find grid reference
 From to

- How to...
- Work with the map
 - Finish with the current location
 - Delete a location
 - Redisplay this page

Area

Save map as

River Avon catchment boundary - displayed to an accuracy of within 125m

Acknowledgements:
 Google for Google Maps
 Bill Chadwick for OS graticule
 Contains Ordnance Survey data © Crown copyright 2011

Add a point or a linear stretch marker

Powered by **LivingRecord.net**: Environmental Recording for England, Scotland and Wales

© mc² Data Innovation Limited 2010-12

User: Adrian Bicker

Dorset Environmental Records Centre

Close Map



Subject Survey: Ivy Bees

my expertise 4

Stretch SY9733098704 to
SY9737498636

Add a new stretch

Step 2: adjust position or extent of the stretch and confirm:

Reposition: Move the pins to adjust the ends of the stretch.
Use the marker to drag the whole stretch into position.

Confirm: Click **here** or click the + marker.

or **Cancel** ?

Adding a record – select the species

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Close Map



Hybrid

Add Record: Survey: Source to Sea project (WWT) at Court Farm: River Stour - right bank

X

Type **Terrestrial plants** Species **select species...**

Date **31/10/2012** and time **5** Certainty **Sure=5** Number **1**

Note

Recorder **me** Identifier

Fallopia japonica x sachalinensis = F. x bohemica
Mimulus luteus agg.
American Skunk-cabbage (Lysichiton americanus)
Giant Hogweed (Heracleum mantegazzianum)
Giant Knotweed (Fallopia sachalinensis)
Giant-rhubarb (Gunnera agg.)
Himalayan Balsam (Impatiens glandulifera)
Japanese Knotweed (Fallopia japonica)
Orange Balsam (Impatiens capensis)

Court Farm - River Stour - right bank

is location or

Records	1 Jan to 31 Dec 2012	Certainty Sure=5	Number	Area sq m	DAFOR scale		
Add New Records singly...							
Add New Records as a list...							

Adding a record – select the scale



Add Record: Survey: Source to Sea project (WWT) at Court Farm: River Stour - right bank [X]

Type: Terrestrial plants Species: Himalayan Balsam (*Impatiens glandulifera*)

Date and time	Certainty	Number	Area sq m	DAFOR scale
31/10/2012	Sure=5 5			

Note: Recorder: me Identifier: me

Buttons: Add, Cancel

- Dominant
- Abundant
- Frequent
- Occasional**
- Rare
- Locally Dominant
- Locally Abundant
- Locally Frequent
- None

Court Farm - River Stour - right bank

Records: 1 Jan to 31 Dec 2012

DAFOR scale

Buttons: Add New Records singly..., Add New Records as a list...

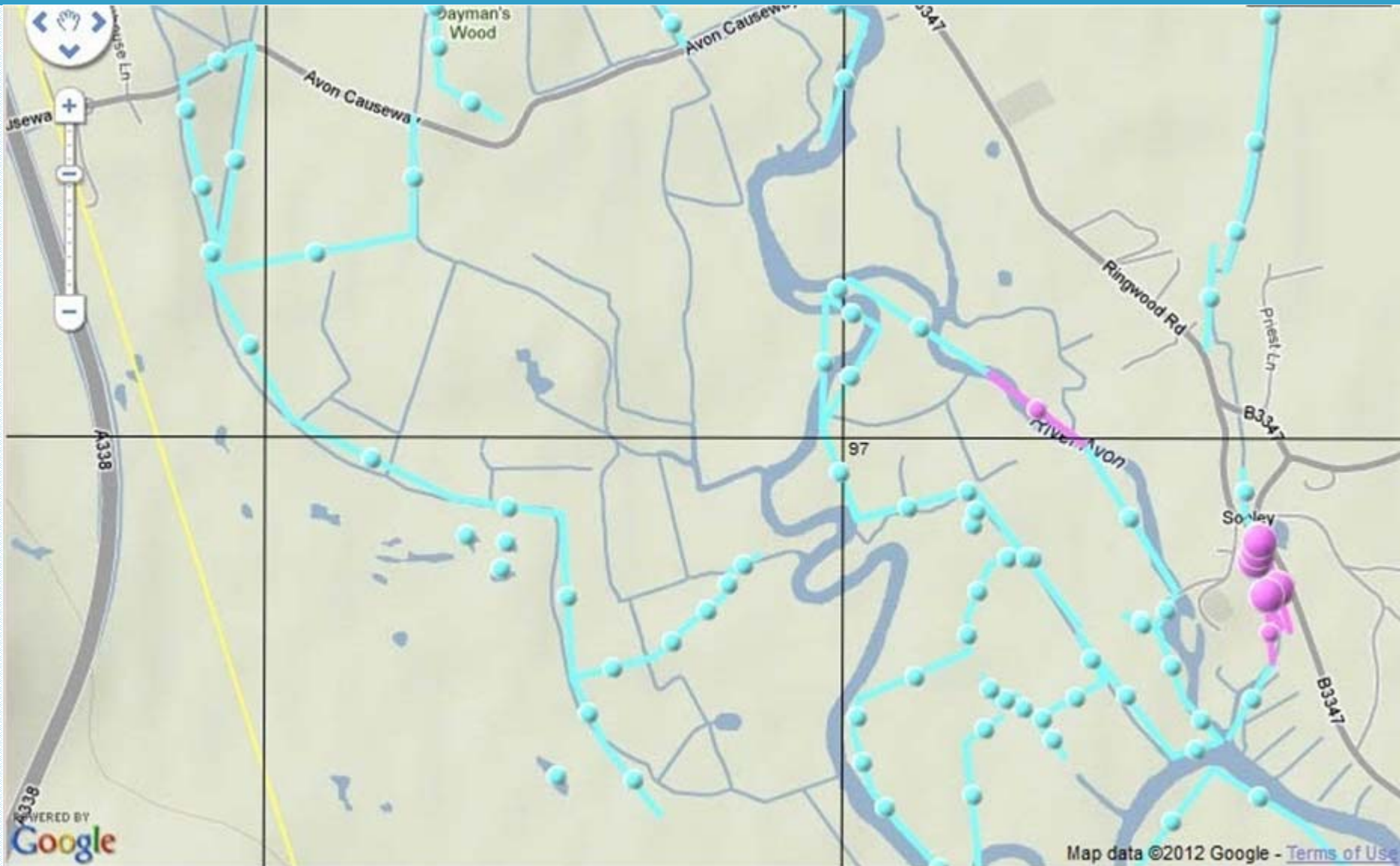
Seeing stretches on the distribution map



DAFOR scale: Dominant Abundant Frequent Occasional Rare None

Himalayan balsam

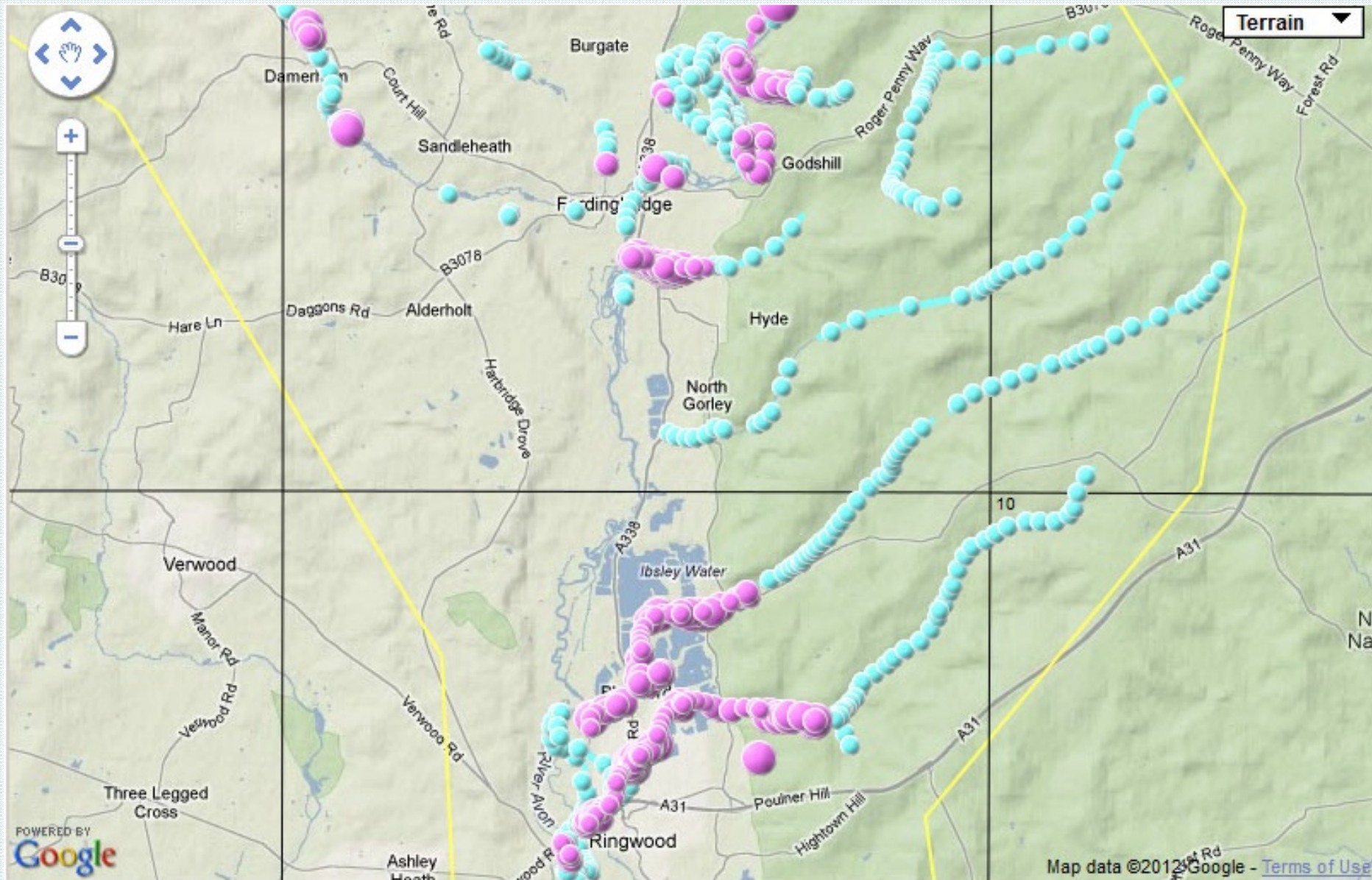
Finding areas that still need to be surveyed



DAFOR scale: Dominant Abundant Frequent Occasional Rare None

Himalayan balsam

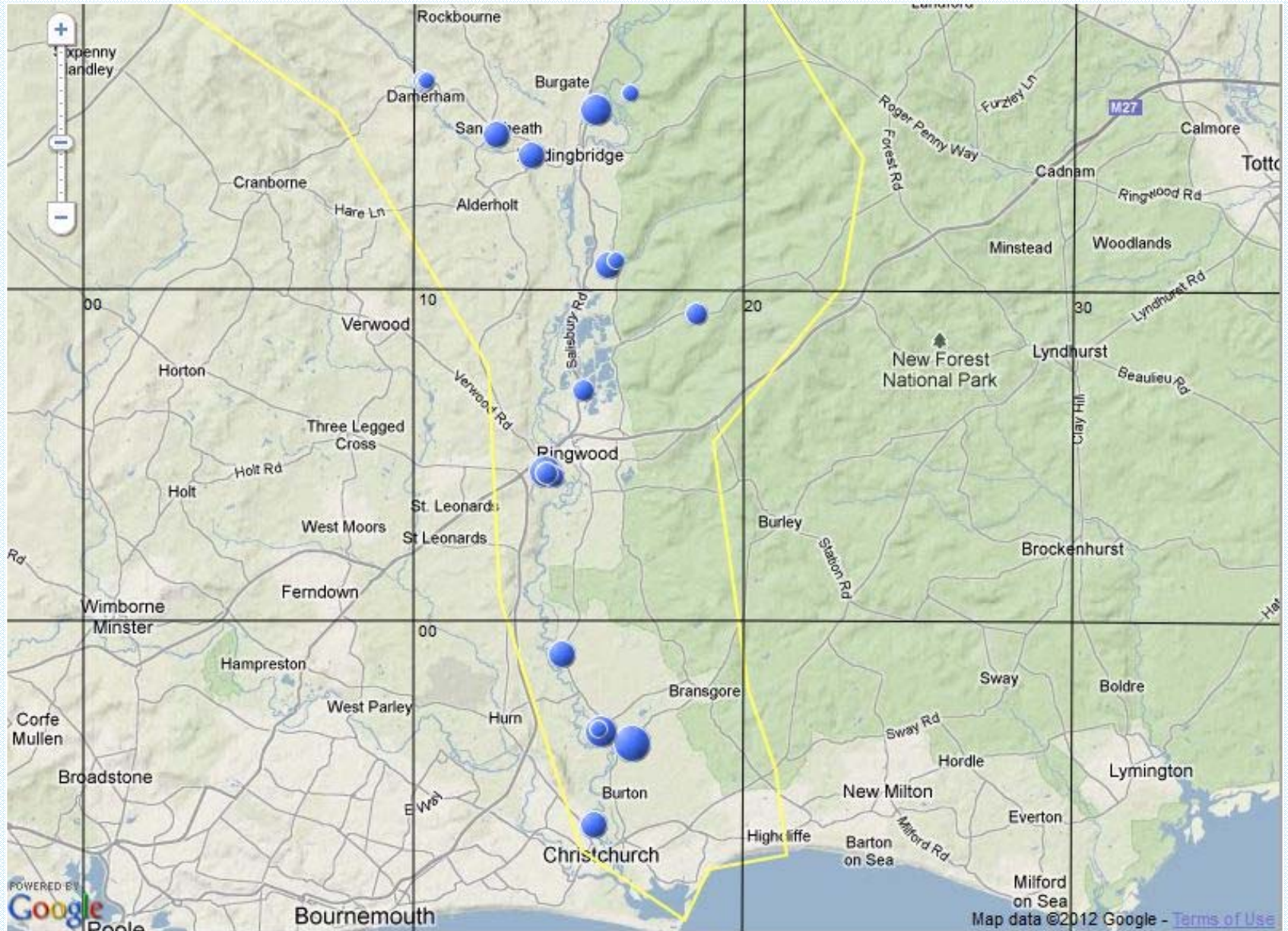
An overview of the work done



DAFOR scale: Dominant Abundant Frequent Occasional Rare None

Himalayan balsam

Instantly treat new sites



Area sq m: 0 1 2-5 6-15 16-40 41-120 >120

Japanese knotweed

Distribution maps

Other advantages

- Motivates surveyors
- Brilliant tool to use with landowners



User: Samantha Stork

Source to Sea project

[Log out](#)[Records](#)[Distribution
Maps](#)[Excel
Download](#)[Options](#)[Help](#)[Verify
Records](#)[Admin](#)Subject

Survey 100m stretches of river bank. Use DAFOR for Himalayan Balsam, area for Japanese Knotweed and number for Giant Hogweed.

Area **River Avon catchment** - Used for the Source to Sea project run by Wiltshire Wildlife Trust to survey the extent and abundance of invasive plants along the banks of the Avon and its tributaries.Records to with certainty level Records compiled by extra optionsSpecies

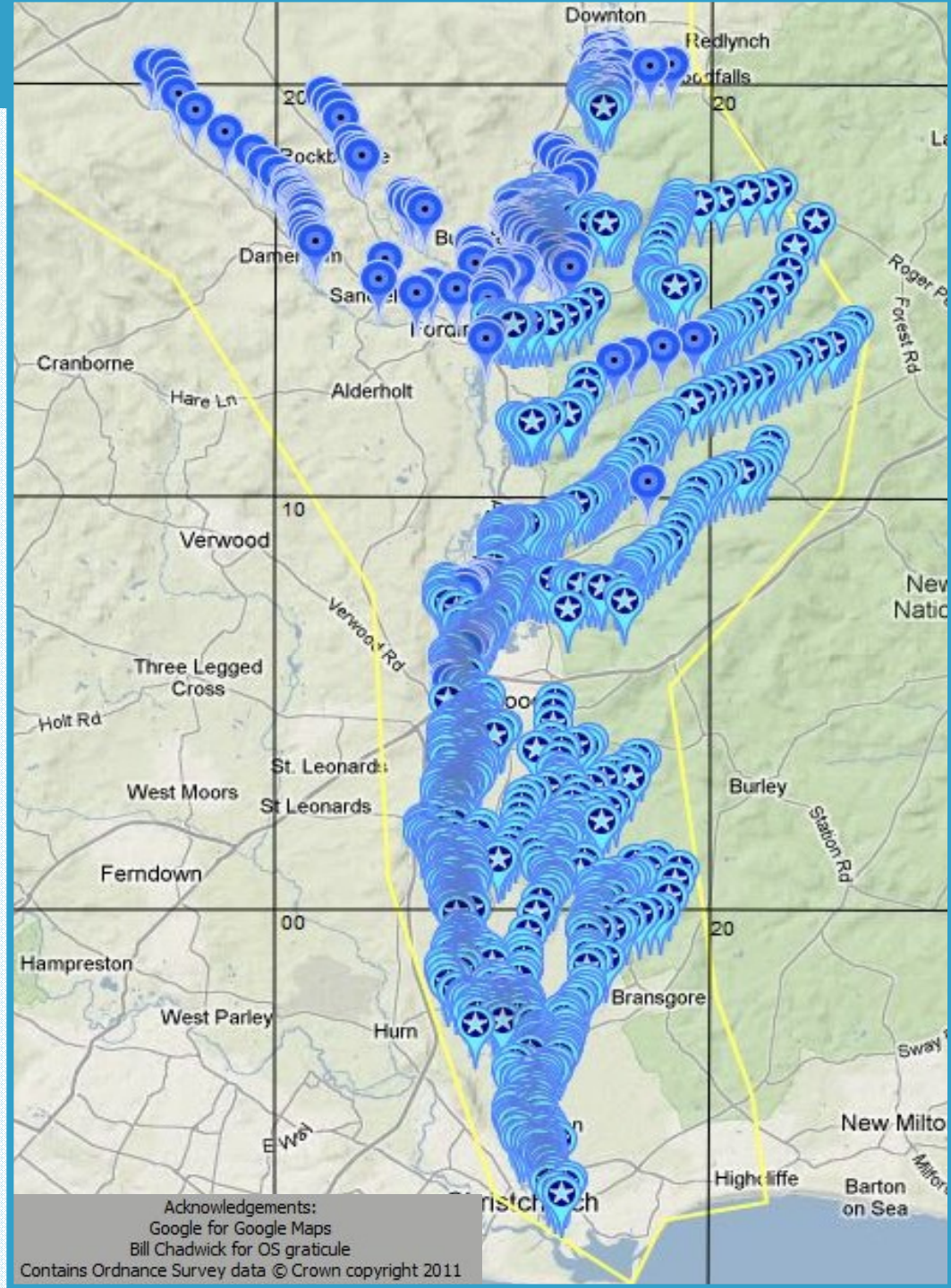
Note that only records for the selected species will be included in the file.

[Extract to Excel](#)

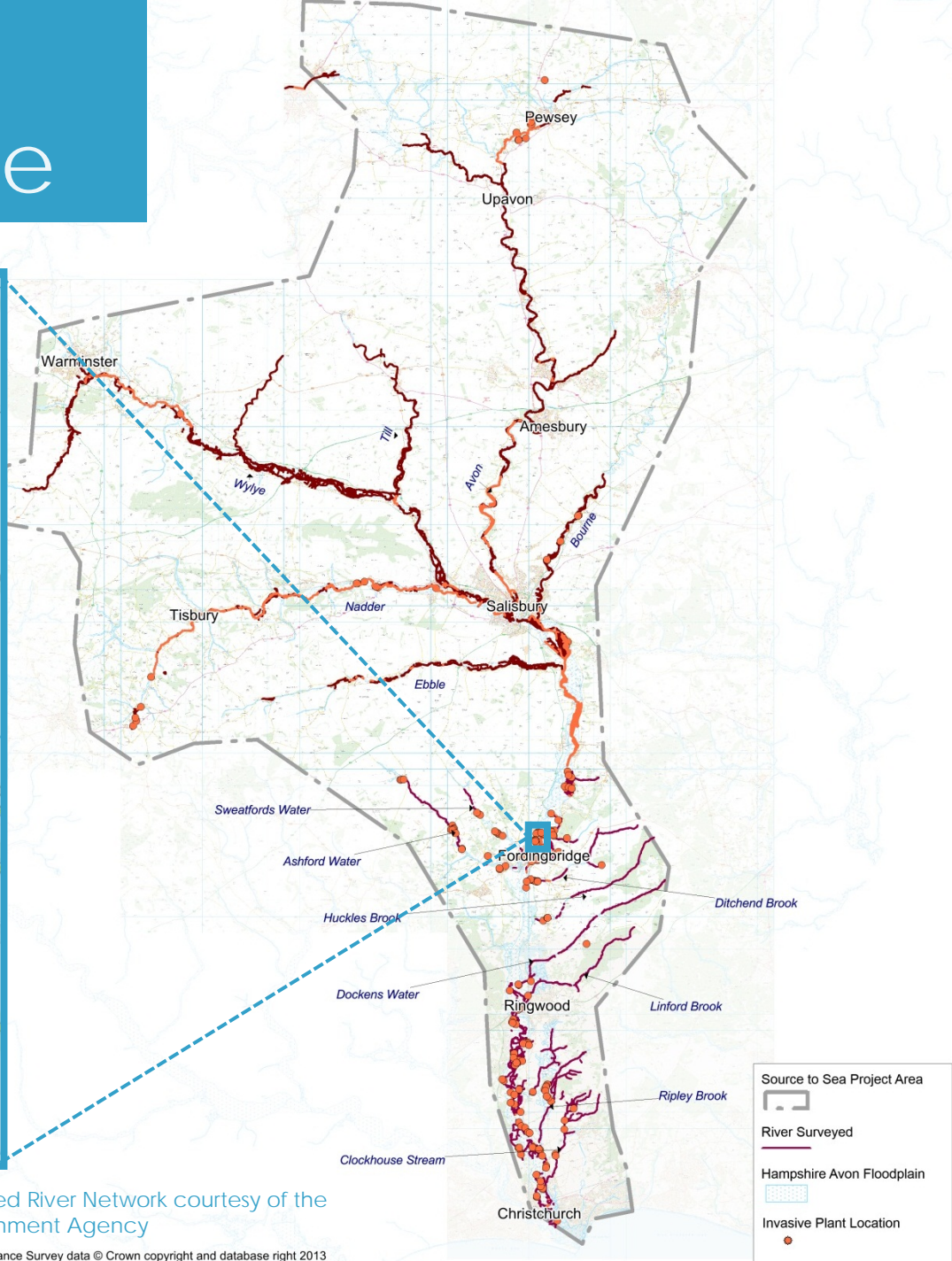
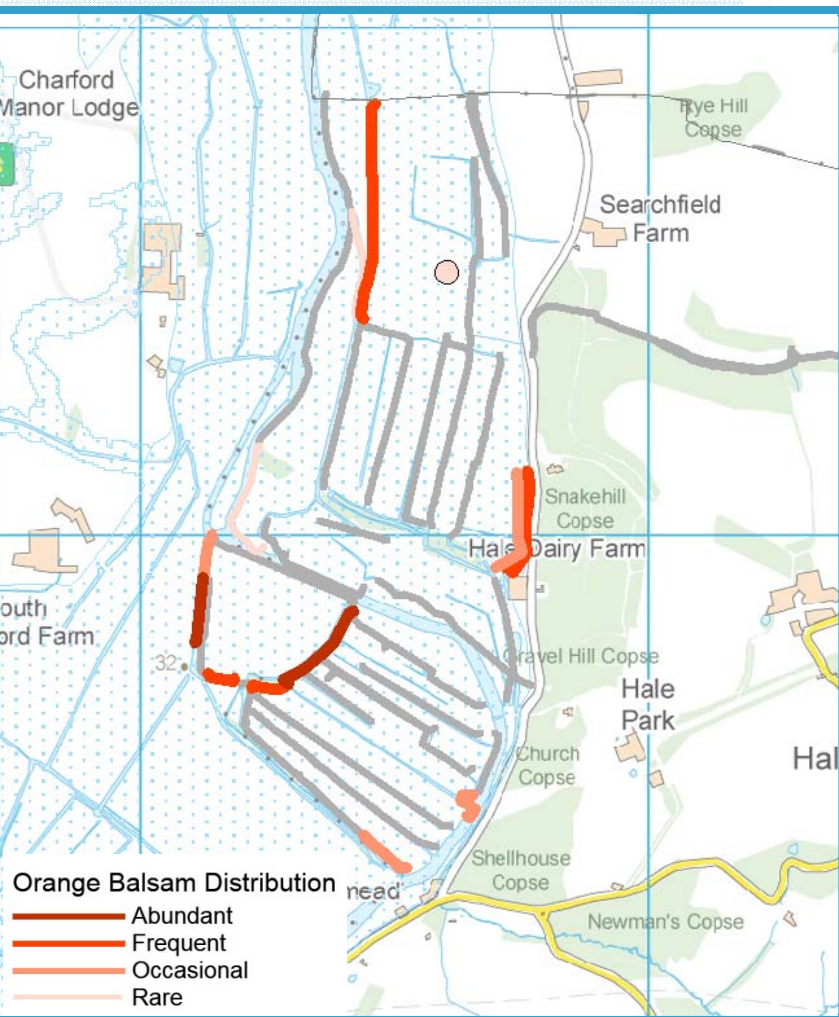
All verified data downloaded by Local Record Centre for GIS mapping

It works!

Over
2,000 records
submitted by
9 surveyors
over
300km
in
3 counties
all formatted
consistently!



Planning at a catchment scale



Detailed River Network courtesy of the Environment Agency

Contains Ordnance Survey data © Crown copyright and database right 2013

Background...

- Running since 2010
- “Grass roots” project
- For recorders by recorders
- 300,000 records for 5,000 different taxa
- Guided by the Dorset Environmental Records Centre
- Initial funding from the Patsy Wood Trust

Data entry – using Google Maps...

- Locations
Add markers to the map...

Living

Data e


• Local

Add

Powered by **LivingRecord.net**: Environmental Recording for England, Scotland and Wales © mc² Data Innovation Limited 2010-14

User: Adrian Bicker **Dorset Environmental Records Centre** [Close Map](#)

Satellite



Map Data 50 m Terms of Use Report a map error

Subject **Insects: Dragonflies** my expertise 4 Checklist **All Species (56)**

Please indicate **survey method** to show whether you carried out a complete site survey. You can enter **survey conditions** for records that have a time.
Total Adults should reflect all adults seen, even if the other columns show a breakdown. If numbers are not available, use + to show presence in any column.

Grid Reference: SY982942

Add a new location marker
Step 2: Set the marker type, reposition and confirm:

Marker type: 100m sq set the resolution and context
Reposition: 10m sq marker into position.
Confirm: 100m sq marker.

Still to do...
Confirm position - see here ->
Next, enter the Area/Site description
then Add the new location.

or **Cancel**

gements:
Google Maps
© Crown copyright 2011

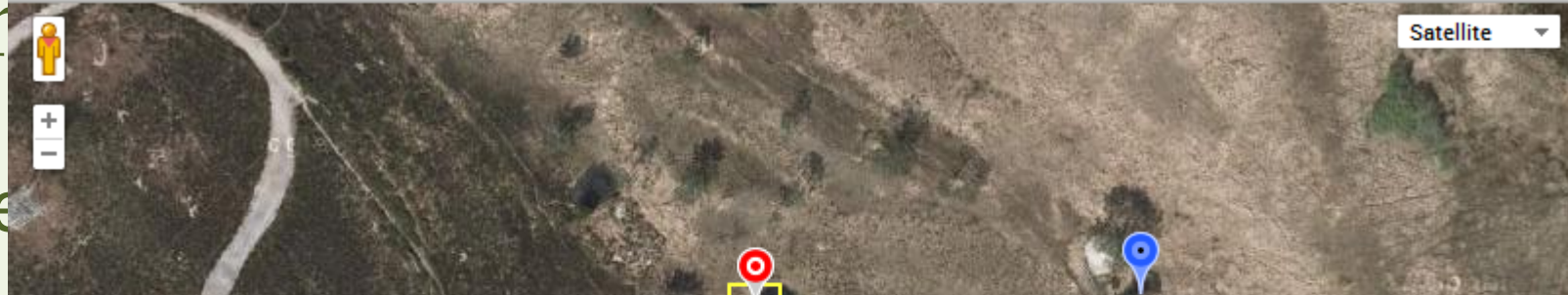
Data entry – using Google Maps...

- Locations
 - Add markers to the map
- Add records...

User: Adrian Bicker

Dorset Environmental Records Centre

Close Map



Add Record: Insects: Dragonflies at Upton Heath DWT: Small pond

Type: All species Species: Small Red Damselfly (*Ceragrion tenellum*)

Date and time	Certainty	Total Adults	M	F	teneral	coupled pairs	egg laying	Larva	Exuvia	Emergent
19/06/2013	Sure=5	5					1			

Method: Casual records

Note:

Recorder: me Identifier: me Specimen:

Project:

Records 1 Jan 2013 to 31 Dec 2014

Certainty	Total Adults	M	F	teneral	coupled pairs	egg laying	Larva	Exuvia	Emergent
Sure=5									

Male (M), female (F), teneral, coupled pairs and egg laying should also be included in the total adults figure. Numbers for Adult + Exuvia + Emergent are used for distribution maps.

Living

Data e

• Local

Add

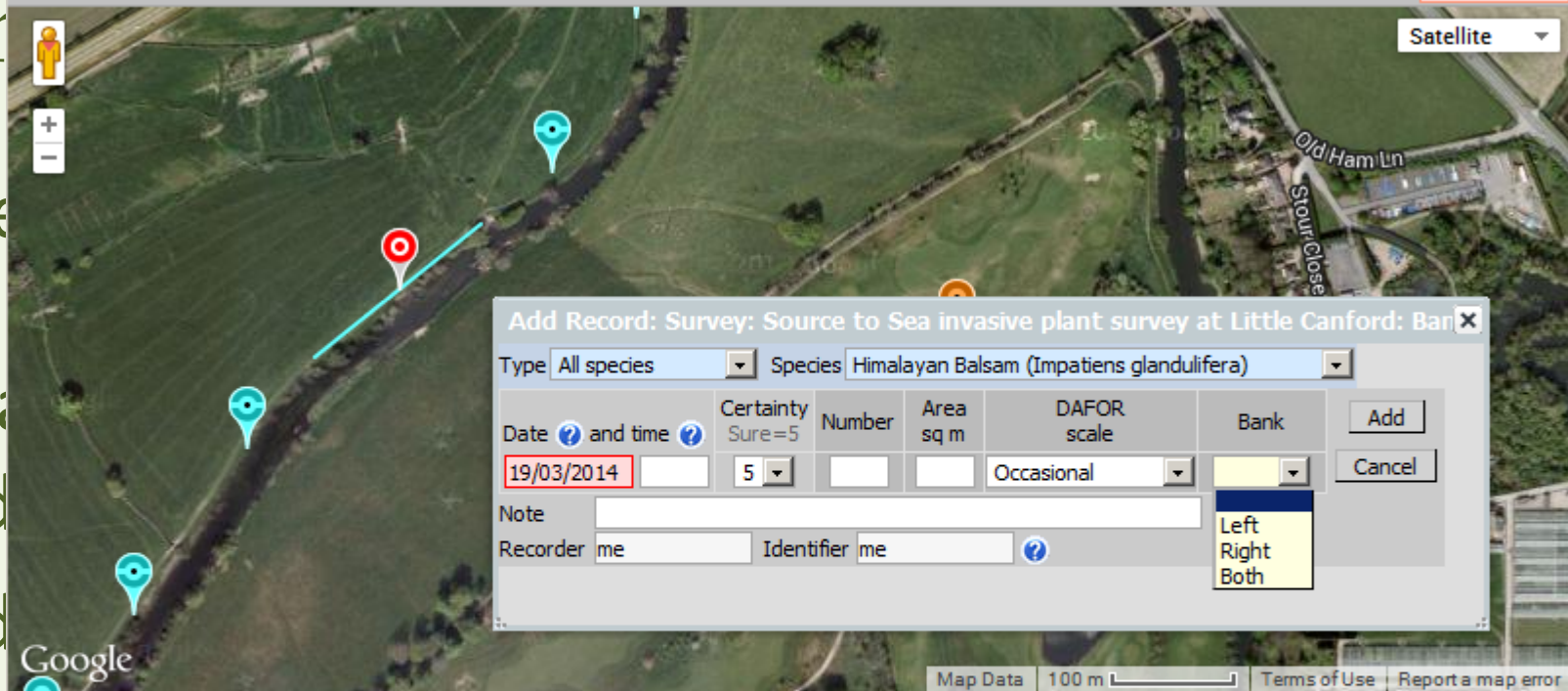
• Add

User: Adrian Bicker

Dorset Environmental Records Centre

Close Map

Satellite



Add Record: Survey: Source to Sea invasive plant survey at Little Canford: Bank

Type: All species Species: Himalayan Balsam (*Impatiens glandulifera*)

Date and time	Certainty	Number	Area sq m	DAFOR scale	Bank
19/03/2014	Sure=5			Occasional	Left

Note: _____

Recorder: me Identifier: me

Buttons: Add, Cancel

Subject: Survey: Source to Sea invasive plant survey my expertise: 1 low Checklist: All Species (18)

Survey 100m stretches of river bank. Use DAFOR for Himalayan Balsam, area for Japanese Knotweed and number for Giant Hogweed.

164m stretch: SZ0394199508 to SZ0406999611
12m Little Canford - Banks of River Stour

Records	1 Jan to 31 Dec 2014	Certainty	Number	Area sq m	DAFOR scale	Bank
Add New Records singly... Add New Records as a list...		Sure=5				

Living

Data e

- Local

Add

- Add

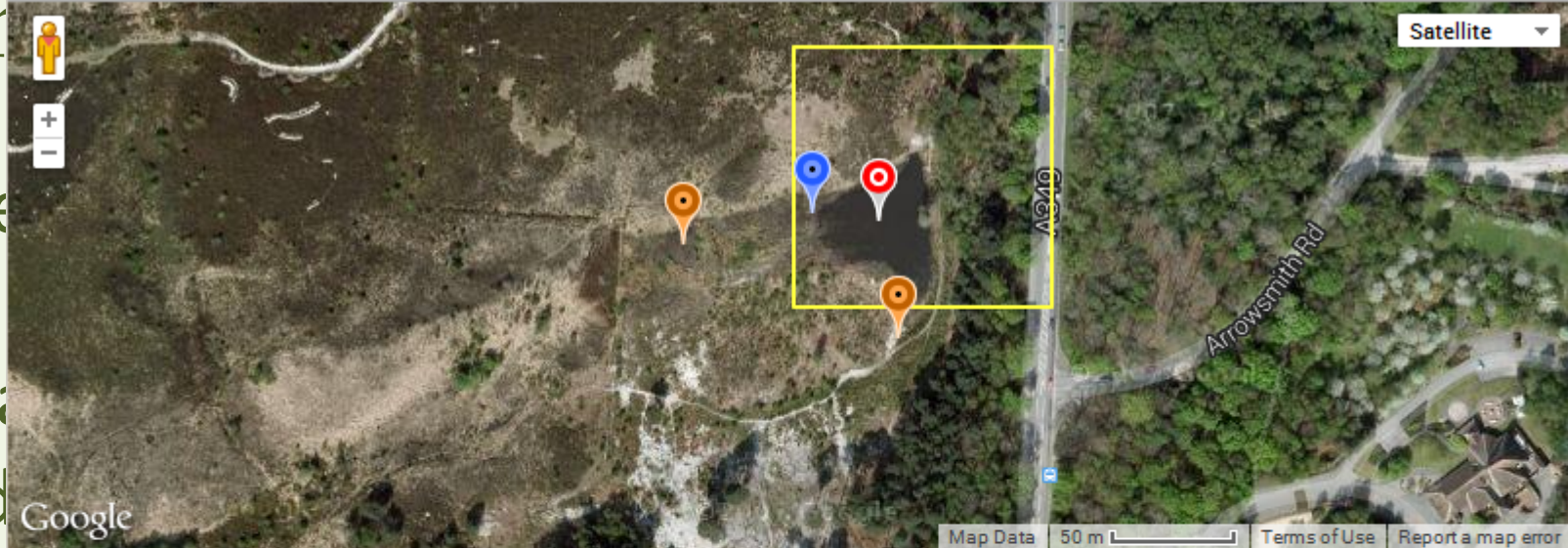
Data entry – using Google Maps...

- Locations
 - Add markers to the map
- Add records
- Review existing records...

User: Adrian Bicker

Dorset Environmental Records Centre

Close Map



Subject **Insects: Dragonflies** my expertise **4** Checklist **All Species (56)**

Please indicate **survey method** to show whether you carried out a complete site survey. You can enter **survey conditions** for records that have a time.
Total Adults should reflect all adults seen, even if the other columns show a breakdown. If numbers are not available, use + to show presence in any column.

SZ015964 Dunyeats Hill - Pond by road and surrounding heathland Click here to finish with this location or

Records	1 Jan 2013 to 31 Dec 2014	Certainty Sure=5	Total Adults	M ♂	F ♀	teneral	coupled pairs	egg laying	Larva	Exuvia	Emerg- ent
18 species											
13/11/2013											
Common Darter (<i>Sympetrum striolatum</i>)	5	6						1			
22/10/2013											
Southern Hawker (<i>Aeshna cyanea</i>)	5	2									
Common Darter (<i>Sympetrum striolatum</i>)	5	10									
24/09/2013											
Emerald Damselfly (<i>Lestes sponsa</i>)	5	14				1					
Common Blue Damselfly (<i>Enallagma cyathigerum</i>)	5	1									
Migrant Hawker (<i>Aeshna mixta</i>)	5	4				1					
Southern Hawker (<i>Aeshna cyanea</i>)	5	1									
Common Darter (<i>Sympetrum striolatum</i>)	5	59						15			
Black Darter (<i>Sympetrum danae</i>)	5	4									

Living

Data e

• Local

Add

• Add

• Rev

Distribution maps

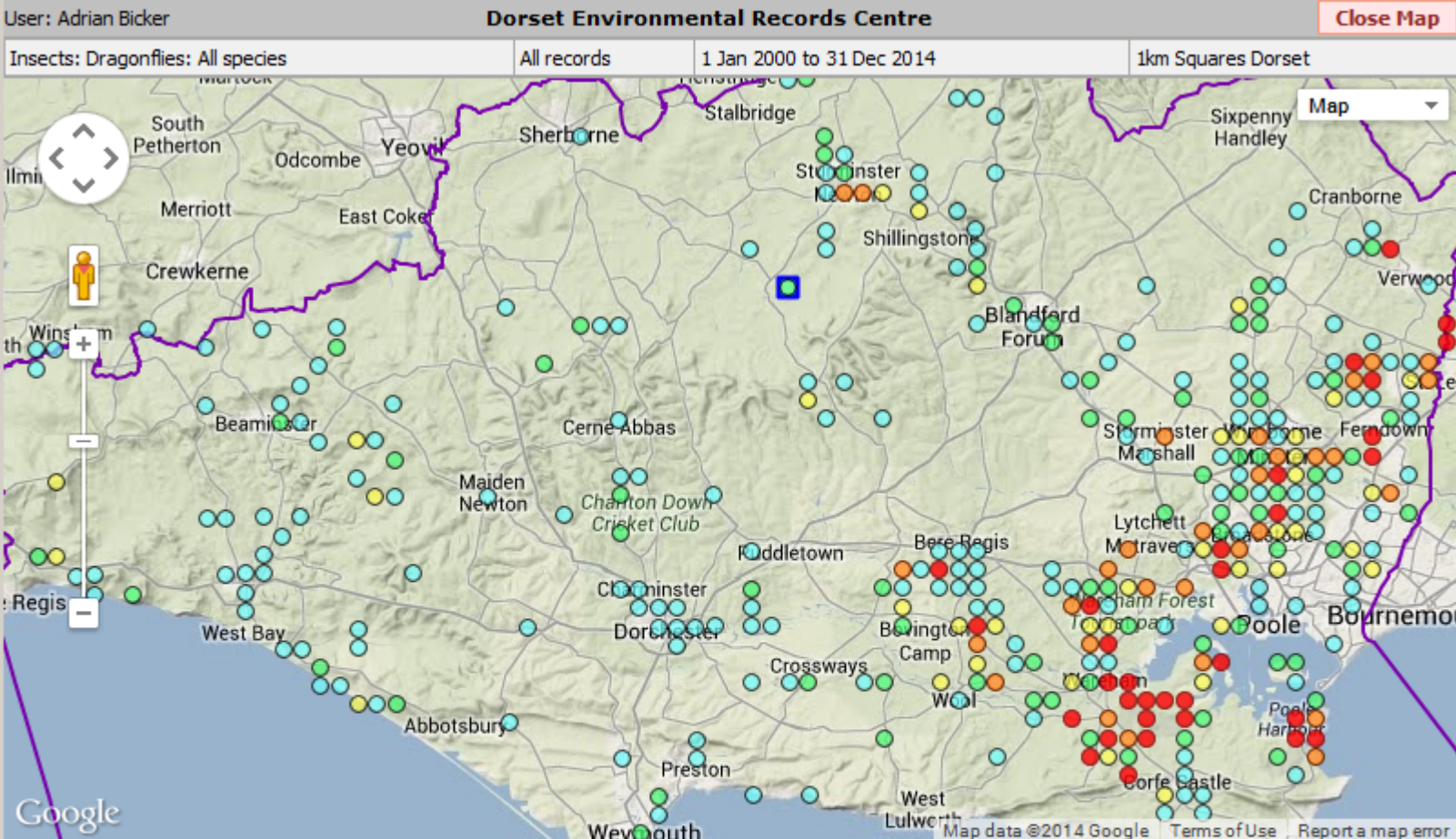
- Survey effort
All species...

Living

District

• Survey

All species



Diversity target = 14 ● 1 - 3 ● 4 - 7 ● 8 - 10 ● 11 - 13 ● 14 + species

Grid Reference: ST7508

1 Jan 2000 to 31 Dec 2014	Records	Total*	Max per day per user*	First Date	Last Date	Flight periods
4 Species						20/7/2014
Blue-tailed Damselfly (<i>Ischnura elegans</i>)	1	3	3	14/08/2011		█
Southern Hawker (<i>Aeshna cyanea</i>)	1	1	1	14/08/2011		█
Emperor Dragonfly (<i>Anax imperator</i>)	1	1	1	14/08/2011		█
Common Darter (<i>Sympetrum striolatum</i>)	1	8	8	14/08/2011		█
All species	4	13				

flight period key: early peak flight period late

Distribution maps

- Survey effort
 - All species
- Single species
 - with abundance...

User: Adrian Bicker

Dorset Environmental Records Centre

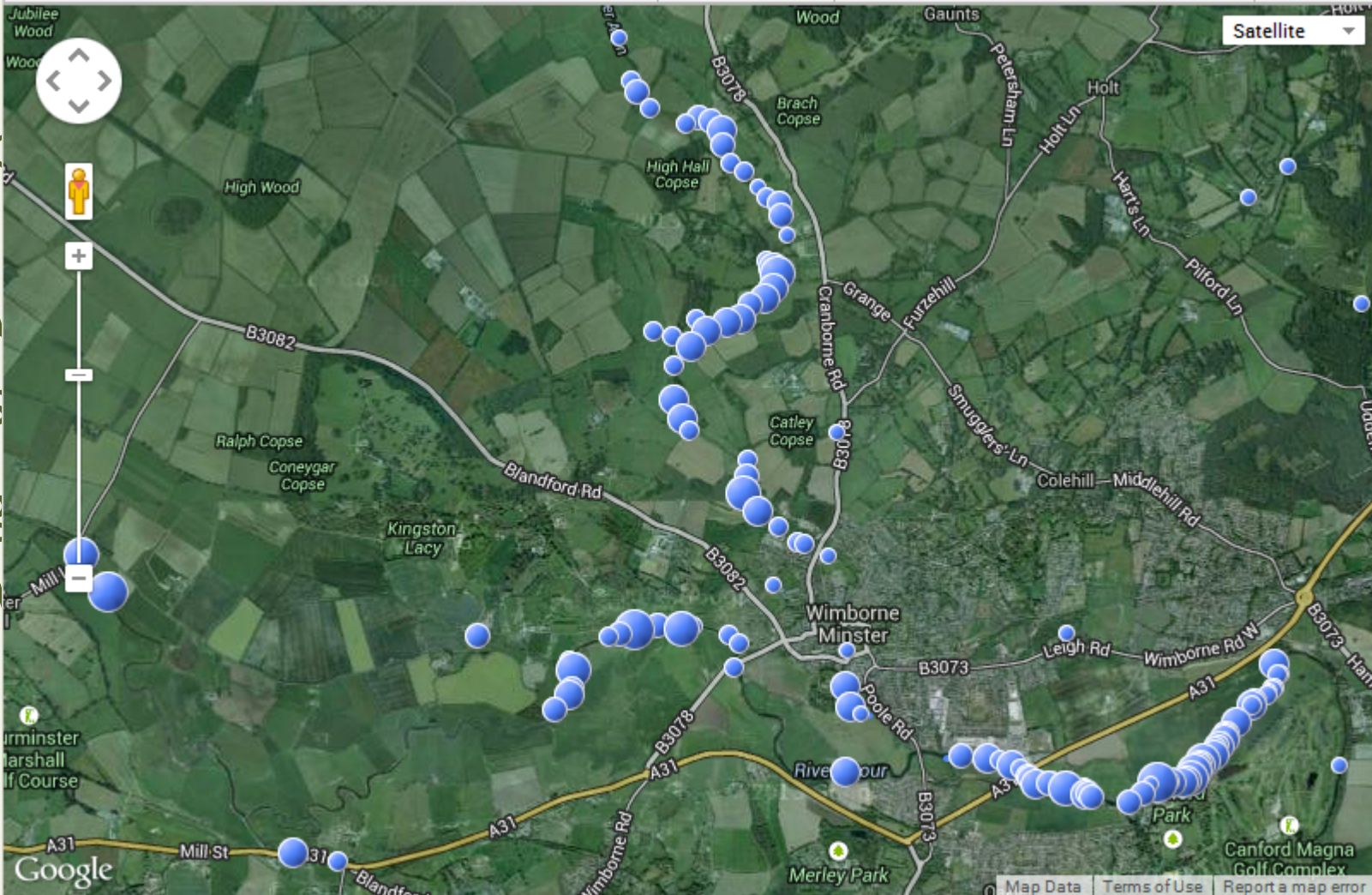
Close Map

Banded Demoiselle (*Calopteryx splendens*)

All records

1 Jan 2000 to 31 Dec 2014

Dorset



Maximum number recorded:
 ● no numbers
 ● 1
 ● 2 - 5
 ● 6 - 15
 ● 16 - 40
 ● 41 - 120
 ● > 120

Numbers include: Adults, Larvae, Exuviae and Emergent

Living

Distrib

- Surv
- All s
- Sing

User: Adrian Bicker

Dorset Environmental Records Centre

Close Map

Banded Demoiselle (*Calopteryx splendens*)

All records

1 Jan 2000 to 31 Dec 2014

Dorset

Satellite



Google

Map data ©2014 Google Imagery ©2014 DigitalGlobe, Getmapping plc, Infoterra Ltd & Bluesky, The GeoInformation Group Terms of Use Report a map error

Maximum number recorded: no numbers 1 2 - 5 6 - 15 16 - 40 41 - 120 > 120

Numbers include: Adults, Larvae, Exuviae and Emergent

Living

District

• Survey

All s

• Single

y

Why Living Record works...

For the recorder:

- Free personal records system
- Maps are fun!
- Shared distribution maps
- Download personal records to Excel
- Respects personal privacy

Why Living Record works...

For local groups and LRCs:

- Local verification
- Local data flows
- Immediate feedback on local projects
- Strong sense of local “ownership”
- Co-operation and team-building

Source to Sea

The Legacy: Spin-off Surveys

- Bristol Region
- Upper Rother
- River Blackwater
- River Bure - almost

Source to Sea

The Legacy: Linear Stretches

- Transects

User: Adrian Bicker

Dorset Environmental Records Centre

Close Map

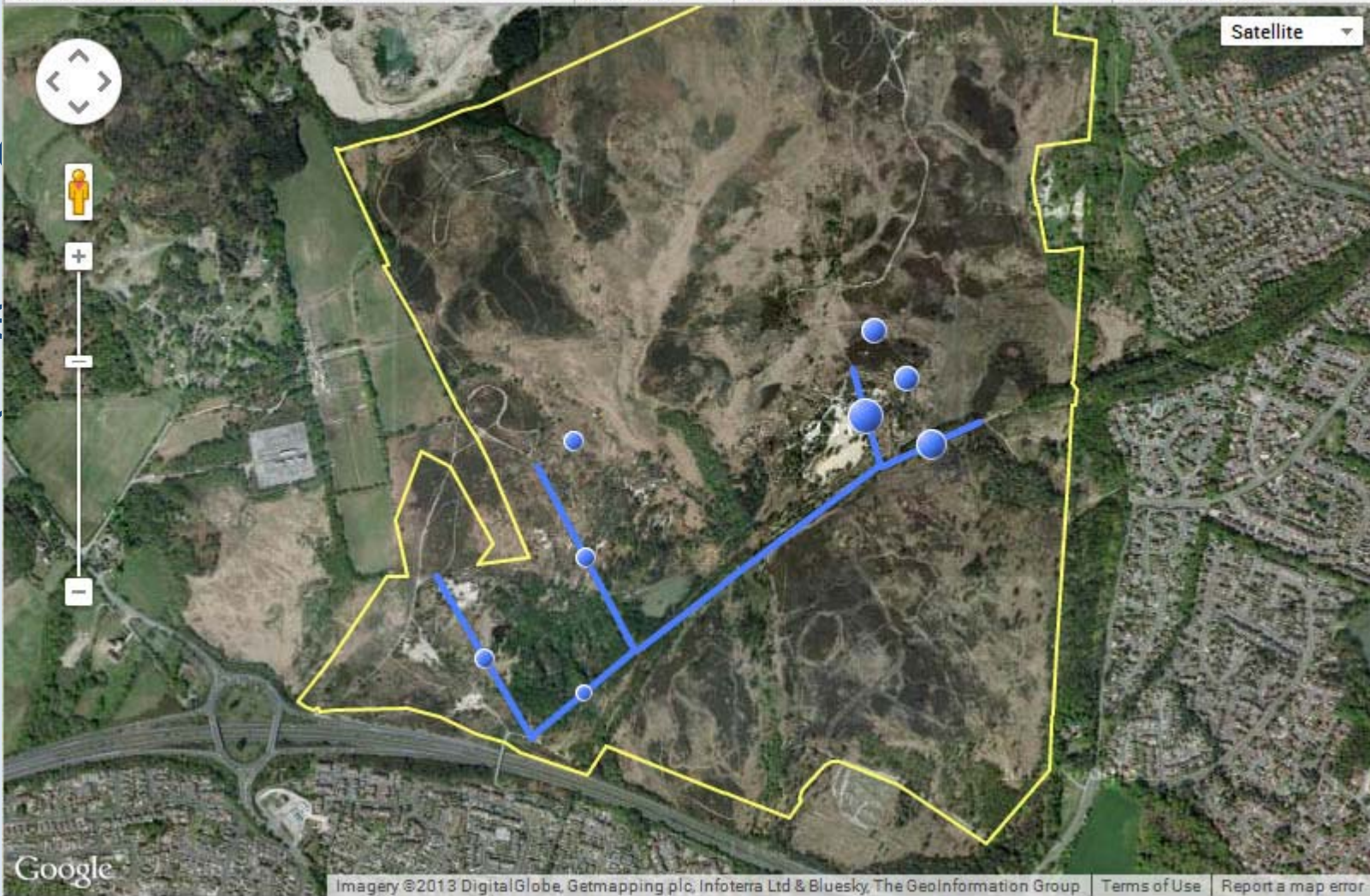
Small Red Damselfly (*Ceriagrion tenellum*)

All records

1 Jan 2000 to 31 Dec 2013

Upton Heath DWT

Satellite



Maximum number recorded:
 ● no numbers
 ● 1
 ● 2 - 5
 ● 6 - 10
 ● 11 - 20
 ● 21 - 50
 ● > 50

Numbers include: Adults, Larvae, Exuviae and Emergent

Living

Source

The Le

- Tran

Source to Sea

The Legacy: Linear Stretches

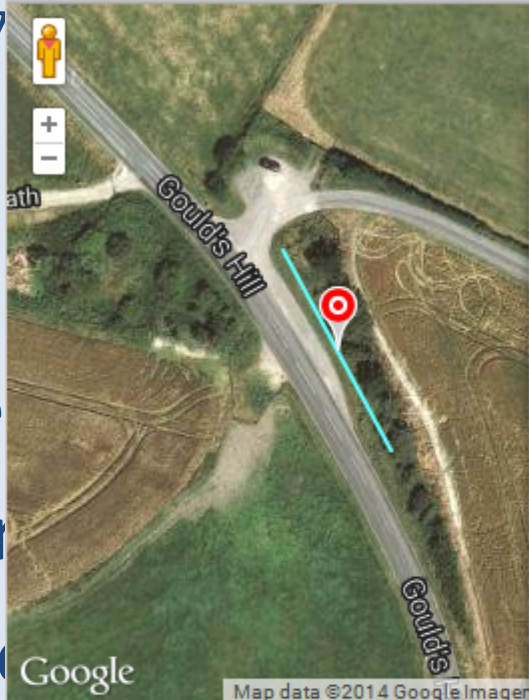
- Transects
- Roadside verges

User: Adrian Bicker

Dorset Environmental Records Centre

Close Map

Satellite ▾



Map data ©2014 Google Imagery

Subject **DWT: Road Verge Survey**

📍 43m stretch: SY6630586562 to SY6632586524
140m Gould's Hill

Records ▾ 1 Jan to 31 Dec 2014

+ Add New Records

Add Record: DWT: Road Verge Survey at Gould's Hill

Road verge

Date and time	Certainty Sure=5	Avg. width part B m	Avg. width part C m	Avg. width part D m	Aspect - verge faces	Vegetation avg. height part C	Add
18/03/2014	5 ▾	1	3	5	SW ▾	11-50cm ▾	Cancel

Verge Reference **A3965**

Surveying part B **▾**

Characteristics

- Mown short: rare ▾
- Mown longer: ▾
- Rough grassland: abundant ▾
- Recent tree-planting: ▾
- Flower-planting: ▾
- Footpath/cyclepath: ▾
- Scrub: frequent ▾
- Tall trees: ▾

Damage to verge?

- Fires: ▾
- Vehicle ruts: low ▾
- Pipe-laying: ▾
- Drainage ditch: ▾
- Camping: ▾
- Trampling: ▾
- Other (describe): ▾

Adjacent land **WO**

Boundary type **FE, WO**

Note **▾**

Recorder **me** Identifier **me**

Living
South
The

- Tr
- R

Source to Sea

The Legacy: Linear Stretches

- Transects
- Roadside verges
- Romsey canals – bat survey

Source to Sea

What next?

- Record details of management actions
- Map distribution changes over time
- Map the effects of management

Source to Sea

The Vision

- Empower local groups to
 - map, manage and monitor invasive plants
 - take ownership and responsibility
- Now ready to support new projects across the country

Citizen Science – who is it for?

Do the citizens...

- Collect data for the scientists?

Why would they?

- Become the scientists?

How do we empower them?

What are the rewards for the citizen?

Thank you



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