

# Why use community-based multilingual networks for conservation through sustainable use?

Robert Kenward,  
IUCN Sustainable Use & Management of Ecosystems

Workshop for European Region,  
Karlovak, Croatia, 23 April 2019.



SUME: Sustainable Use and  
Management of Ecosystems



**HAVE YOU EVER  
GATHERED WILD  
FLOWERS/FRUIT/  
FUNGI? HAVE YOU  
FISHED/HUNTED?**



For children in the countryside, a first really rewarding experience of nature and its riches (biodiversity), is to gather or fish with Dad or pick flowers with Grandma.



# 1992: Convention on Biological Diversity

## Three pillars

- ▶ Conservation
- ▶ Sustainable use
- ▶ Equitable distribution of benefits

Defines Sustainable Use: of components of biodiversity in a way and at a rate that does not lead to the long term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations.

SU in 13 of 19 substantive articles.



## Parties agreed principles for conservation through local folk:

- ✓ Malawi('98): Ecosystem Approach (humans are included)
- ✓ Addis Ababa('04): Sustainable Use (adaptive management)
- ✓ Nagoya('10): Local Capabilities (tradition & local knowledge)

# 2004: CBD adopted the Addis Ababa Principles & Guidelines for Sustainable Use

*(Short version) Sustainability of use of biodiversity will be enhanced if there is:*

- Supportive & linked governance at all levels
- Empowerment & accountability of local users
- Adaptive management using science, **monitoring**, local knowledge and timely feedbacks
- Equitable sharing of benefits for local people
- Transparency & **international co-operation**
- **Public awareness of the benefits**

Very similar to Ecosystem Approach, as similar authors

**IUCN recognises that biodiversity loss is caused mainly by intensified use of farmed, forested & aquatic ecosystems.**

e.g. for 30 declining bird species in UK, Prof. **Ian Newton** (2004, **Ibis 146:579-600**) identified:  
(i) weed control, (ii) early ploughing, (iii) grassland management, (iv) intensified stocking, (v) hedgerow loss & (vi) predation as problems.

**All can be addressed, in many cases by de-intensification measures that have low cost**

**However, is de-intensifying too COMPLEX ?**  
**also, someone has to pay: WHO PAYS ?**

# Competing economically: who pays?

Voluntary (e.g. NGO membership, eco-labels)

State (taxation e.g. EU reformed CAP)

- taxation outside N. America & Europe?
- long-term sustainable in those areas?

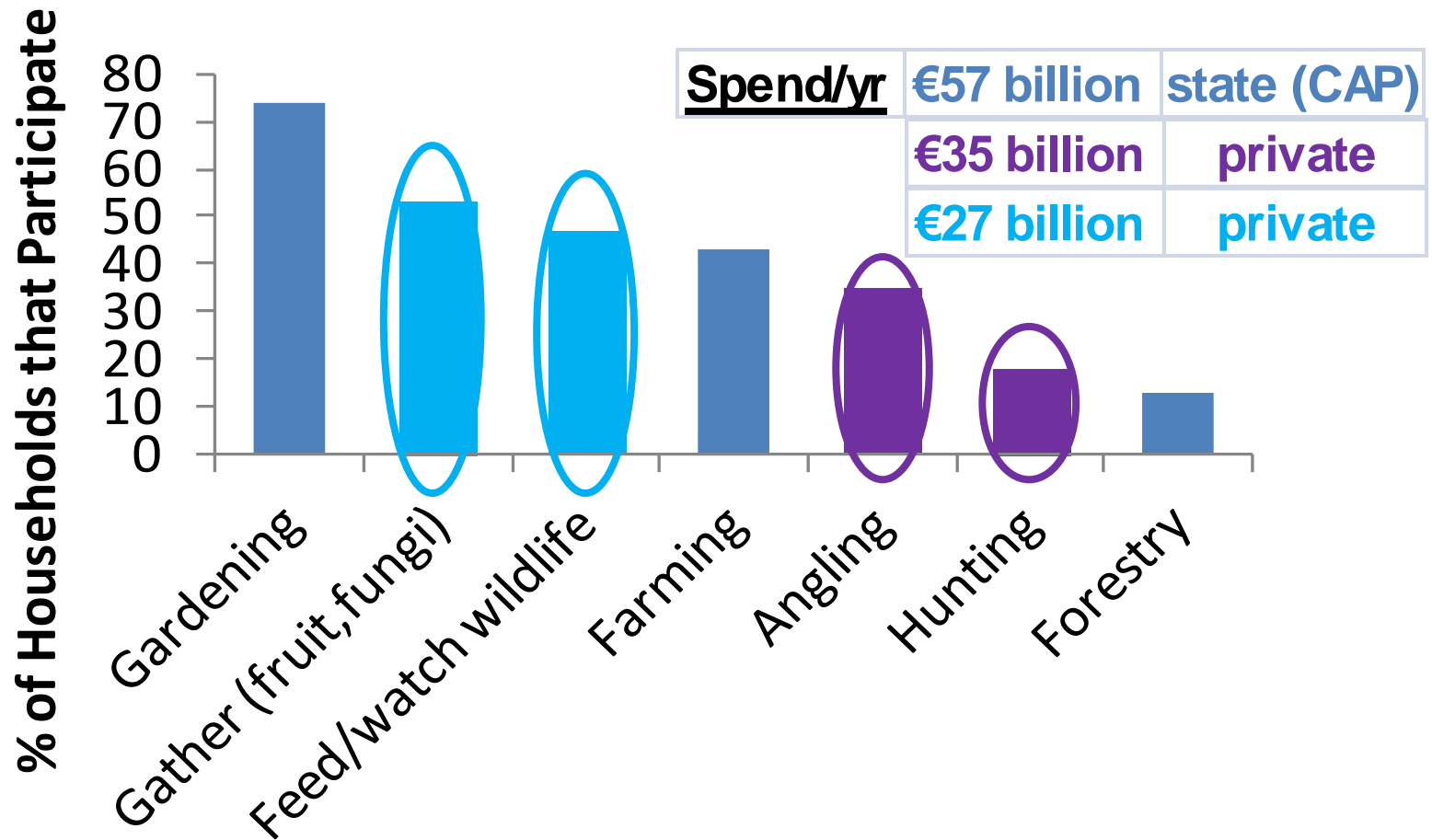
Private (e.g. sustainable use of flora & fauna)

- conserves large areas in Africa – livestock vs hunting



- but can it conserve much land in Europe?
- is it worth much in Europe anyway?

# TESS project. There are 120,000 local communities in the EU. How do rural citizens use their environment?



- Ca 100 million citizens, spending >€60 billion p.a.
- Scope for conservation from this resource through:  
**Restoring, Mapping & GIS, Nature Ambassadors**



# Transactional Environmental Support System

TESS surveys showed that **local** communities too were interested in having web-sites, and we knew what they would like for the environment online:

**Maps of species and habitats; and  
Forecasting to assist land-use decisions.**

We also knew from TESS that they can contribute if guided with mapping software we could provide:

**Fine scale maps of species and habitats**

Moreover, we knew that **international** communities in IUCN could help organise: **five of eight TESS local projects were organised by hunters.**

**IAF has organisations in 90 countries**

# Towards Environmental Decision Support (EAI)

With a multilingual mapping tool (here for grouse habitat mapped over an aerial photograph) ...

Anatrack Mapper for TESS - LangholmTest - 15 Oct 2014 10:08:04

File Edit Help

Mapping Type

- Habitat A
- Habitat B
- Habitat C
- Habitat D
- Habitat E
- Habitat F
- Habitat G
- Habitat H

Mapped Objects

- 55. -hole
- 56. -hole
- 57. -hole
- 58. -hole
- 59. -hole
- 60. Habitat A
- 61. Habitat B
- 62. Habitat G

Area Details

Area Points

- 2427.257, 1756.374
- 2417.5, 1763.47
- 2405.969, 1775.001
- 2403.309, 1781.21
- 2399.761, 1788.305
- 2387.343, 1784.758
- 2378.473, 1777.662
- 2362.507, 1774.114
- 2361.62, 1763.47

-187.003, 55.12966 No GPS device Moved point 27 in shape 60. Habitat A Add, edit or delete mapped objects

11:37 25/10/2014

# ... to be assessed with software to provide decision support enhancing game habitats

Ranges v0.10. For the Analysis of Tracking and Location Data, Anatrack Ltd.

[About](#)
[Location](#)
[Overlap](#)
[Interaction](#)
[Habitat](#)
[Modelling](#)
[Statistics](#)
[Log](#)
[Help](#)

Data: [open](#) [new](#) [import](#) [modify](#) [export](#) [save](#)  
 C:\Users\dixons\Documents\Ranges\temp.edg

Background: [full](#) [clipped](#) [open](#) [close](#)  
 C:\Archive\Temp\ToDo\TTrans\STAG\Mapping\LangholmTest\ves

Edge Shapes

Ran...	ID	Age	Sex	Month	Year	Core
1	0	X	X	1	0	0%

Edge Vertices

No.	E	N
1	484.527	482.33624
2	484.527	1000
3	837.92426	1000
4	837.92426	482.33624
5	484.527	482.33624

Ranges Analysis Log

```

Log rank chi-square values with 1 d.f.: 0.144389, 0.12116 and 0.118949
Z for difference between 0.173714 and 0.20187: -0.22692 (Greenwood) and -0.3047

Analysis completed successfully on Fri Oct 24 15:35:44 BST 2014

-----
Analysis started on Sat Oct 25 11:15:56 BST 2014

Initialising analysis ... please wait ...

Map category areas in m2
filed in : C:\Users\dixons\Documents\Ranges\temp.csv
Road          2326.5      1.3%
OldHeather    35648       19.5%
Grass         20248       11.1%
YoungHeather  15402       8.4%
Heather       30978       16.9%
Grass/Heather 56682       31.0%
Heather/Grass 21943       12.0%

Extents edge filed in
C:\Users\dixons\Documents\Ranges\temp.edg

Analysis completed successfully on Sat Oct 25 11:15:57 BST 2014
  
```

Ranges Statistics

[open](#) C:\Users\dixons\Documents\Ranges\temp.csv

row	W-edge	E-edge	S-edge	N-edge	TotalAre...	Road	OldHe...	Grass	Young...	Heather	Grass...	Heath...
1	484.527	837.92...	482.33...	1000.0	182940.95	1.3	19.5	11.1	8.4	16.9	31.0	12.0

include range centres selection

200m

Windows taskbar: 11:22 25/10/2014

# Exchanging decision-support for local knowledge and actions

<u>SCALE</u>	<u>CONTEXT / QUESTION</u>	<u>OPERATION MODE</u>
<b>Field</b> individual	<b><u>! BEEP !</u></b> <b><u>HARRIER NEST AHEAD</u></b>	<i>Satnav diverts harvester for 20 meters.</i>
<b>Garden</b> individual	Is it too soon for the Nyphalid butterflies if I cut the nettles now?	<i>Intelligent GIS on tablet</i>
<b>Farm</b> individual	If I use my land like this in future, what happens to my income, game bags and nitrate run-offs?	<i><u>Auto-guides</u> on farm plan: <u>optimizing</u> game, fishing and farm income.</i>
<b>Parish</b> community	How do we route this path to optimise views while minimising erosion and wildlife disturbance?	<i>Headland mapping GIS: walking (pay-parking), horse-riding (licence).</i>
<b>Higher govern- ment</b>	If trends in land-use continue for 20 years, how can we still meet planned biodiversity targets?	<i>Scenario: model subsidy payments for leveraging sustainable use activities.</i>

# Global-with-local (Glowcal) systems

A global-with-local system must be able to work in all local languages, e.g. Google, Microsoft, Facebook, Twitter.

NB. Facebook and Twitter enable distributed social networking **within** cultures. Multilingual Naturalliance, Sakernet and Perdixnet also emphasise rapidly converging concepts and facts **across** cultures, something that can otherwise take several years.

**Do we have several years for climate change?**

# Tool 1: Multilingual cultural converger 2011, 2015

**Naturalliance** Login Register  go

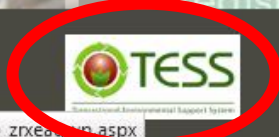
Home About Topics Habitats/Species Donate Contact Us

**Topics**

- A system for local communication
- Restoring nature
- Managing alien species
- Gathering fungi, fruits and other natural products
- Arable farming & grazing livestock
- Forestry or other tree cultivation for timber/fuel/fibre
- Gardening and horticulture, including orchards and vineyards
- Aquaculture or fishery for food
- Fishing in rivers, lakes and the sea
- Hunting and game management
- Nature watching & photography
- Managing nature reserves or other

Naturalliance aims to help everyone whose work or recreation depends on nature. It will build up the knowledge you need, in your own language, for local decisions to manage and restore land, water and wildlife, whilst recording the good work you are doing for nature across Europe. New information is on restoring nature, managing alien species, gathering fungi and to help network local communities for conservation.

- Find out more about Naturalliance
- Explore the Naturalliance topics
- Investigate tools for monitoring habitats and species
- Register with Naturalliance or login to access privileged content



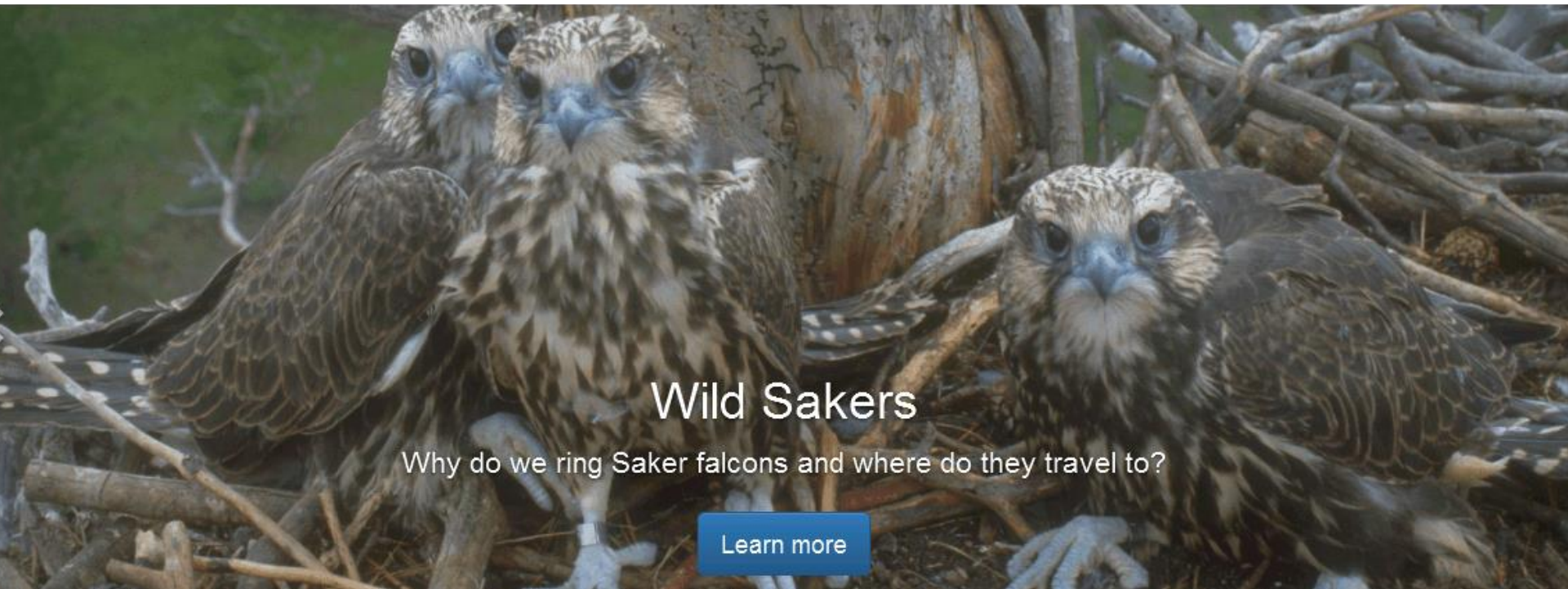
# Social challenges: which sector?

Business seeks short-term commercial gain

Government pays, provided it needs & controls

Civic gives durability, but funding challenge

Language (RTL, fonts) challenge, links, diagrams...



## Wild Sakers

Why do we ring Saker falcons and where do they travel to?

Learn more

anonymous.

to sustain their activities.

Register here

Do the survey

Survey results

# Like IUCB, International Association for Falconry & Conservation of Birds of Prey saw that multilingual sites can network to national language sites for project work. Hence Sakernet, Perdixnet, AmFalCon



**Naturalliance** Connectez-vous s'inscrire  aller 

**Sujets**

- Un système pour la communication locale
- Restaurer la Nature
- La gestion des espèces non indigènes
- Cueillette des champignons, des fruits et d'autres produits naturels
- Les grandes cultures et l'élevage
- Sylviculture ou l'arboriculture pour le bois / le combustible / les fibres
- Jardinage et horticulture, y compris les vergers et les vignobles
- L'aquaculture ou de pêche pour la nourriture

**Navigation:** [Accueil](#) [A propos](#) [Sujets](#) [Habitats/espèces](#) [Faire un Don](#) [Contactez-nous](#)

## Communication Locale

Les richesses naturelles (biodiversité) et les services qu'elles procurent (services écosystémiques) sont les meilleurs là où la gestion locale est adaptée et où il existe un réel partage des connaissances. C'est pourquoi, le projet qui est à l'origine de Naturalliance a demandé aux différentes autorités européennes ce qui leur manquaient comme connaissances pour gérer l'environnement. Les autorités locales ont mis en avant leur volonté d'obtenir des conseils sur la gestion des problèmes socio-environnementaux ainsi que sur la cartographie fine des habitats et des espèces. Les associations représentatives du monde rural ont exprimé quant à elles leur souhait d'être aidées dans la prise de décision locale en matière de production et de conservation, et sur les outils de cartographie susceptibles de faciliter cela. Elles ont également hiérarchisé les exemples de meilleure



**East Stoke Community**

**East Stoke**

is a village in a beautiful part of Dorset, overlooking the wide flat valley of the River Frome, situated in the south Dorset National Park and consisting of the settlements of East Stoke, Stratford, Ripton, Highwood, Hinton, Boreham, West Frome, Hintonbridge and Woodbridge.

The village has a population of 450 (2001). The world famous Mottis Frome Gap (Stoke) is near the northern edge of the Frome. The Centre for Biological Conservation runs a research centre on the banks of the River Frome. More about the [Gap & Stoke Conservation Trust](#) runs its research into ancient woodland sites.

This is a community website so please get in touch with any ideas or feedback or if you run a local organisation and would like your own site.

Most useful information is contained elsewhere on this site. However it is hoped that the following index, and hyperlinks below, will provide additional useful information.

**USEFUL LINKS**

**News**

- 22 Apr 2015 Five young people meet on the River Frome
- 21 Apr 2015 Appointment in becoming a Parish Council for East Stoke?

Le premier site britannique construit avec un Système pour la Communication Locale (cliquez sur l'image pour l'agrandir et sur Meilleure Pratique pour en apprendre plus)

## Ressources

- Meilleure Pratique
- Bonnes Idées

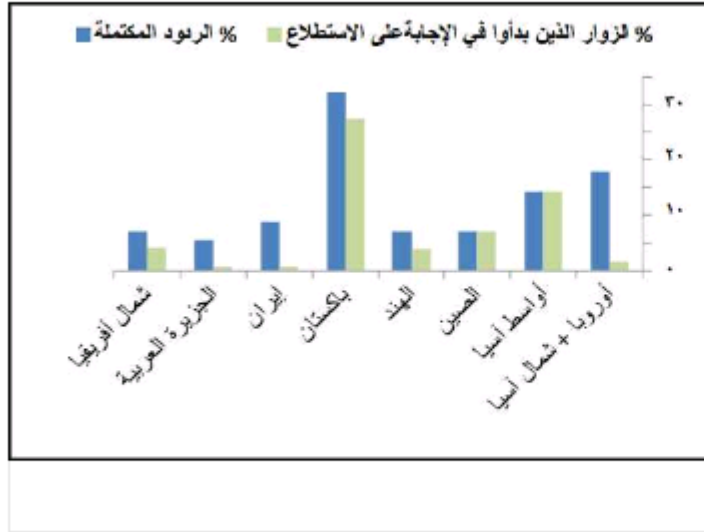


# Right-to-left txt, culture specific diagrams & links

## نتائج الاستطلاع الجديد

الشكر الجزيل لجميع من ساهم في استطلاع العام الماضي. الرسوم البيانية الثلاثة الأولى في هذه الصفحة توضح نتائج البيانات التي تفضلتم بتوفيرها. وقد تم توفير المزيد من المعلومات، بما في ذلك مقدمة وموجز تقرير السنة الأولى في الوثائق المتاحة في الجزء السفلي من هذه الصفحة.

ويوضح الرسم البياني الأول أن معظم مشاركات العام الماضي جاءت من باكستان. فقد شارك معظم الأشخاص الذين زاروا الموقع على شبكة الإنترنت من تلك الدولة في الاستطلاع. ونتيجة لذلك، تم سحب اسمين لفائزين من باكستان بجوائز الاستطلاع، مع ذهاب الجائزة الثانية إلى دولة الإمارات العربية المتحدة، والجائزة الرابعة إلى دولة أوزبكستان. إذا لم تستطع المشاركة في استطلاع العام الماضي، يمكنك المشاركة في الاستطلاع الجديد، حيث توجد فرصة لك للفوز بوحدة من جوائز هذا العام.

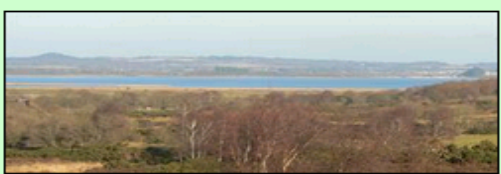


ويظهر الرسم البياني الثاني أن معظم الصقارين والصيادين في شبه الجزيرة العربية يأخذون صقورهم إلى العيادات البيطرية للتأكد من سلامتها وصحتها. ولعل هذا هو السبب في طول أعمال الصقور، كما يشير إلى ذلك الرسم البياني الأخير في هذه الصفحة، والمأخوذ من أول استطلاع من شبه الجزيرة العربية. ويبدو أن هنالك حاجة لمزيد من عيادات الصقور لمساعدة الصقارين والصيادين في الصين وشمال أفريقيا وباكستان.

ويبين الرسم الثالث أن معظم الصقارين في جنوب ووسط آسيا والصين يطلقون صقور الحر البرية بعد الصيد بها. فهم لا يزالون يتبعون الممارسات التراثية التقليدية التي تعود إلى العديد من الأجيال الماضية.



# Tool 2: System for Community Liaison (SYCL) has instructions in 15 languages (target 40-50)



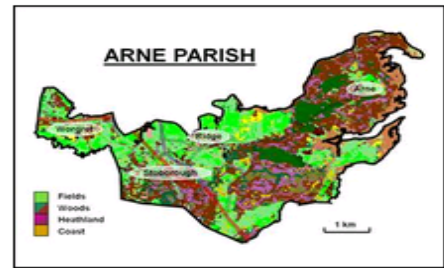
## Arne Parish

- [Home](#)
- [Neighbourhood Plan](#)
- [News](#)
- [Documents](#)
- [Contact Us](#)
- [Register](#)

- [Calendar](#)
- [Notices](#)
- [Classifieds](#)
- [Mapping](#)
- [Gallery](#)
- [Services](#)
- [Interests](#)
- [Nature Actions](#)

### Arne Parish

Arne is a rural parish with about 1,370 citizens in settlements from Worgret in the west to Arne hamlet in the east and Furzebrook Road to the south, with most people in villages at Ridge & Stoborough. Apart from a small proportion of mudflat and water to the east, the 29km<sup>2</sup> of the Parish is about half used for farming with a fifth heathland and a fifth woodland.



Major roads run west from Wareham towards Dorchester in the north of the parish, and south towards Swanage, with railway links also to these towns. The River Frome flows across the Parish through extensive water-meadows. The rich land-use makes Arne Parish an important part of the 10km square that has the most plant species in Britain, so nature conservation and tourism are important local interests, joining clay-mining in generating local jobs.

#### Arne Parish Survey and Plan

In 2010, Arne Parish Council asked all households to complete a survey for a Parish Plan which was ready in 2011. The survey showed an increasing proportion of citizens working from home. It also set a European standard for community participation in mapping wildlife and habitats. *Please click on our [Parish Plan 2010](#) to have a look.* This evolved from an earlier [Parish Plan 2003](#).

#### Neighbourhood Plan

A new [Neighbourhood Plan](#) is now underway which will give all Arne Residents a chance to have their say in the development of the Parish. A Steering Group has just been set up and progress and requests for help and information will be posted on the adjacent tab, so please watch that space!

#### Local facilities and amenities

Arne Parish has many useful facilities, including Stoborough School for first tier education, the Lookout Stores and Purbeck Motors for purchases and pubs with food at the Kings Arms and Halfway Inn. There are hotels at Worgret Manor and with sports facilities at the Springfield Country Hotel. The Church at Arne,

To look closer at the map (and any image on this site), please click on it; use the back button (←) at the top left of your browser to return to the same page. Clicking a [link](#) may open a pdf file in a separate window or take you off-site in the same window. Again you can use the back button (←) to [return](#).

[Community Governance Review Notice Consultation ends 7th October 2016](#) (Proposal to increase number of councillors from seven to eight)

[Next Arne Parish Council Meeting 20th October 2016](#)

*(NB. Minutes of meetings can be found in 'Documents' tab above)*

#### Arne Parish Councillors

For a list of councillors and their telephone numbers [click here](#).

The Councillors' Representation on various bodies is [listed here](#).

#### News

26 Oct 2015 [Parish Clean-up Day](#)

21 Mar 2015 [Hang-Up On Fraud](#)

# ... or clubs or even local tourism businesses ...



## Tanglewood Farm Bed & Breakfast

[Home](#) [About](#) [Contact Us](#) [Register](#)

[Calendar](#)

[News](#)

[Walks](#)

[Pictures](#)

[Links](#)

[Nature Actions](#)

### Welcome From Tanglewood! We are Airbnb "Superhosts"



Looking for a quiet place to stay or bed and breakfast in the Purbecks?

Look no further. Tanglewood is perfectly situated in the heart of the Purbecks for that relaxing break.

Our address is

Tanglewood,  
Holme Lane,  
Wareham,  
BH20 5DH

[Booking is easy](#) (from £65/night). There is a choice of a large and comfortable guest suite (bedroom, bathroom, lounge-kitchenette), or a well-equipped Shepherd's Hut for more adventurous visitors. Book the [Shepherd's Hut](#) here. Like to know [more about us?](#)

Or please feel free to contact us on

01929 550971

### Claude the Dorking Cockerel

19 Feb 2016



Tanglewood farmhouse has 4 acres of woods and streams and 12 acres of grassland. There are plenty of great places to see, in an area with beaches, undulating hills and the highest floral diversity in the UK, not to mention the [Jurassic Coast](#) and its [fossils](#). Heathland is a local feature and specially protected European habitat, accessible on foot just 300 m from Tanglewood, or take another

# Tool 1 can be a 'glowcal' hub for 2!

Naturalliance, launch 2011, content upgrade 2015

Sakernet, launch 2015, Perdixnet launch 2017

The new multilingual converger links out in each culture (e.g. Swiss German distinct from Swiss French) to relevant national sites or documents. Culture-specific laws, customs, species are addressed nationally on monolingual sites, while only the general principles across cultures are translated on the converger.

**Building this tool is a Socio-technological challenge**

# Four ways to link sites within a network:

- Insertion of links for document downloads, other pages or external sites anywhere within site content;
- Common pages across sites within a culture can signpost other glocal systems in that culture (viz “Nature Actions”);
- Horizontally, by searching for other SYCL sites and networks (a map is foreseen) and using ‘contact-us’;
- Vertically, via other web-services (e.g. the proposed decision support) operating for global (or national) with local levels.



# Restoring and Enriching Nature

## The Aim

We would like this network to inspire you to restore nature and to inform you how to do it. To achieve this aim, we will work with governments that want you to enhance nature and not merely to leave it alone. We will help land-using business that seeks to conserve as well as to control nature. We will encourage volunteer effort and nature-based livelihoods to benefit wild resources. Our ethos is based in charters from the Bern Convention, for activities that support the riches of nature. We favour enjoying nature in as many ways as possible, because "what pays, stays".

[Home](#)[About](#)[Restoration](#)[Revitalising Habitat](#)[Re-establishing Pa](#)



with help from



# Perdix-UK

[Home](#)

[About](#)

[News](#)

[Documents](#)

[Contact Us](#)

[Launching](#)

[Survey](#)

[Mapping](#)

[Habitat](#)

[Predation](#)

[Re-establishment](#)

[Register](#)

[Nature Actions](#)



## Restoring and Enriching Nature



Welcome to our Perdix portal for restoring and enriching nature. As [wildlife biologists](#) and [falconers](#), working with farmers, hunters and the vast diversity of conservation interests in the [International Union for Conservation of Nature](#), we believe that food production can coexist with flowers and fauna to enrich our lives and livelihoods. Fifty years of research on the Grey Partridge (*Perdix perdix*) have shown this to be possible. We want to bring you the knowledge that is starting to be used to restore nature across Europe by engaging [all the activities that benefit from nature](#). More of this is explained, in a growing number of languages, on the main site of our [Perdix international system](#).

We need help from all of you to build the understanding for enriching both nature and livelihoods. Please spread the word about this site and others we mention here, all of which are developing projects to benefit local communities and land-managers. Thus, you can link here to [Farmer Clusters](#) working to enrich large areas, to [Wildlife Estates](#) that certify the efforts of landowners and to the extensive network of [Green Shoots](#). Our aim is to complement their efforts with information on restoring the wildflowers and insects that they support, and the Grey Partridge as a flagship that depends on them all.

After all, the Grey Partridge can be restored. A highly successful study [project in Sussex](#) has shown the way.

To enlarge any image on this site, just click on it, and use ← to return to whole page. Clicking on links will open them in a new window so that you can easily return to the same place on this site.

Some links may be to downloads which open in this window. After reading or saving them you can again use ← to return to page with the link.

If you have trouble seeing downloaded documents, hold down Ctrl and press J. Alternatively, at the top right of your browser, for:

Explorer:

click the cog, then 'Downloads'

Chrome:

click the ≡, then 'Downloads'

Firefox:

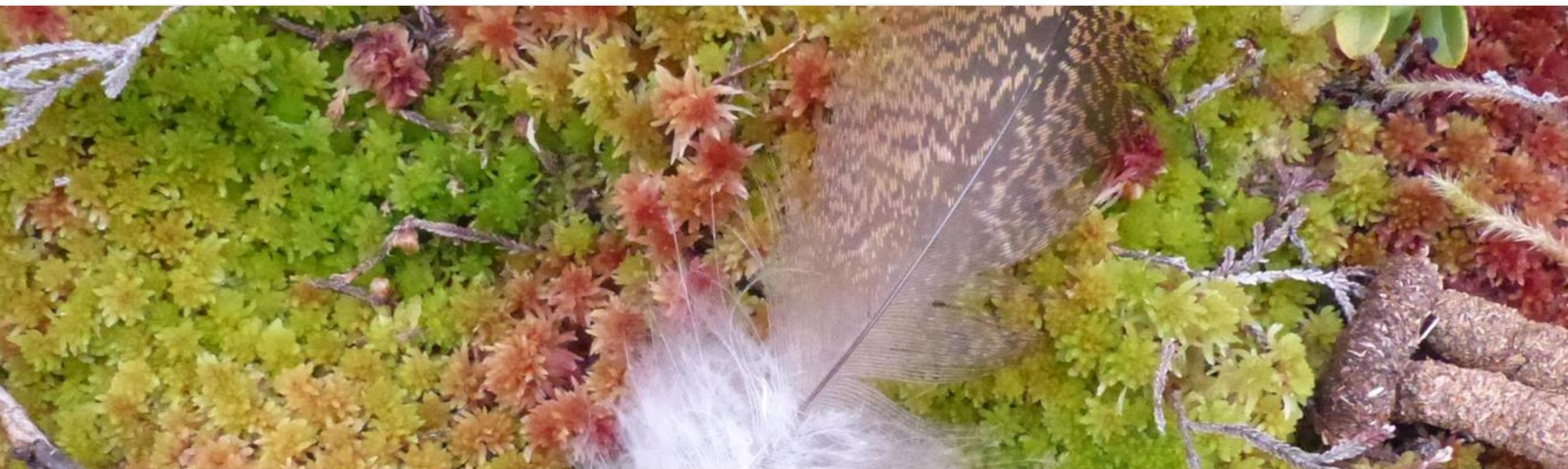
click the ↓ arrow

## News

19 Aug 2016 [Perdixnet Pan-Europe is ready for translation](#)

[Read more](#)

- Southern Africa (English)
- 日本 (日本語)
- Southern Asia (English)
- Australia (English)
- New Zealand (English)
- Oceania (English)
- Eire (English)
- Malta (English)
- United Kingdom (English)
- Canada (English)
- USA (English)



## 我々の目標

Naturallianceは人々がどこに住んでいようと自然の豊かさと恩恵を再生し持続できるように案内することです。

なぜこれが重要なのか理解するためにこれらのページをお読みください、またはあなたがお住まいの場所の情報のためにここをクリックしてください。(英語)

## 地球という生態系とその資源

- ホーム
- このサイトについて
- 生態系の利用
- 保護と持続性
- 変化に適応



# Naturalliance2 Staging Editor

## Translation

- [Home](#) - Return to the editor home page
- [Users](#) - Create edit and suspend users
- [Registrants](#) - Manage registrants
- [Editable Pages](#) - Create and edit pages
- [Sponsors](#) - Create the sponsor bar
- [Translations](#) - Translate pages and data
- [Languages](#) - Set languages live
- [Publish](#) - Publish staging data to live
- [Site](#) - Go back to the last page you visited on the site

Select a resource set such as a page then select elements within the set to translate. Elements that are shown in red have not been translated into the specified language. Click **Save** to save each change before moving on to the next element.

### Resource set:

Contact Page ▼

### Elements to translate:

Btn Submit Text  
Contact Description2 Text  
Contact Form Label Email Address  
Contact Form Label Issue Text  
Contact Form Label Message Text  
Contact Form Label Name Text  
**Contact Introduction Text**  
Contact Issue Item1 Text  
Contact Issue Item2 Text  
Contact Issue Item4 Text  
Contact Issue Item6 Text  
Contact Title Text  
Contact Validation Failed Text  
Message Sent Confirmation Text  
Page Title

### Text to translate:

**ja:** フォームに記入後、送信ボタンをクリックしてメッセージをお送りください。

**lt:** Siunčiant pranešimą užpildykite nurodytą formą ir paspauskite mygtuką "Siųsti".

**mn:** Бидэнд мессэж явуулахаар бол формыг бөглөөд илгээх товчийг дарна уу?

**ms:** Hantar pesanan anda kepada kami dengan mengisi borang ini dan ketik butang Hantar

**ne:** फारम भरनुहोस् र 'पठाउने बटन' थिचेर हामीलाई सन्देश पठाउनुहोस् ।

### Language to translate into:

Arabic (ar) ▼

### Translation:

ارسل لنا رساله وذلك بتعبئة النموذج والنقر على زر الارسال

Save

Next Untranslated

Next Changed

Progress

Excel

Ready

- [Afrika Mashariki \(Kiswahili\)](#) [አቶራዊ \(አማርኛ\)](#) [شمال أفريقيا \(العربية\)](#) [Afrique du Nord \(Français\)](#) [Kenya \(Kiswahili\)](#) [Nijeriya \(Hausa\)](#) [Iningizimu Afrika \(isiZulu\)](#)
- [Southern Africa \(English\)](#) [Afrique de l'Ouest \(Français\)](#) [Afirka ta Yamma \(Hausa\)](#) [افغانستان \(پښتو\)](#) [বাংলাদেশ \(বাংলা\)](#) [ಕಟ್ಟಣಿ \(ᱫᱷᱟᱱᱵᱟ\)](#)
- [Центральная Азия \(русский\)](#) [中国 \(中文\)](#) [საქართველო \(ქართული\)](#) [भारत \(हिन्दी\)](#) [Indonesia \(Melayu\)](#) [ایران \(فارسی\)](#) [日本 \(日本語\)](#) [대한민국 \(한국어\)](#)
- [ລາວ \(ລາສາລາວ\)](#) [Malaysia \(Melayu\)](#) [Монгол Улс \(монгол хэл\)](#) [မြန်မာ \(မြန်မာဘာသာ\)](#) [नेपाल \(खस कुरा\)](#) [پکیتھ \(اردو\)](#) [پښکښم \(پښتو\)](#) [Southern Asia \(English\)](#)
- [ประเทศไทย \(ภาษาไทย\)](#) [دولة الإمارات العربية المتحدة \(العربية\)](#) [Việt Nam \(Tiếng Việt\)](#) [غرب آسيا \(العربية\)](#) [\\*aisAtseW\\* \(فارسی\)](#) [Australia \(English\)](#) [New Zealand \(English\)](#)
- [Oceania \(English\)](#) [Österreich \(Deutsch\)](#) [Беларусь \(Беларускі\)](#) [België \(Nederlands\)](#) [Belgique \(Français\)](#) [България \(български\)](#)
- [Republika Hrvatska \(Hrvatska\)](#) [Κύπρος \(Ελληνικά\)](#) [Česká republika \(Čeština\)](#) [Danmark \(Dansk\)](#) [Eesti \(Eesti\)](#) [Suomi \(Suomi\)](#) [France \(Français\)](#)
- [Deutschland \(Deutsch\)](#) [Ελλάδα \(Ελληνικά\)](#) [Magyarország \(Magyar\)](#) [Ísland \(Íslenska\)](#) [Eire \(English\)](#) [Italia \(Italiano\)](#) [Latvija \(Latviešu\)](#) [Lietuva \(Lietuvių\)](#)
- [Luxembourg \(Français\)](#) [Malta \(English\)](#) [Nederland \(Nederlands\)](#) [Norge \(Norsk, bokmål\)](#) [Polska \(Polski\)](#) [Portugal \(Português\)](#) [România \(Română\)](#)
- [Россия \(русский\)](#) [Србија \(српски\)](#) [Slovenská republika \(Slovenčina\)](#) [Slovenija \(Slovenski\)](#) [España \(Español\)](#) [Sverige \(Svenska\)](#) [Suisse \(Français\)](#)
- [Schweiz \(Deutsch\)](#) [Svizzera \(Italiano\)](#) [Türkiye \(Türkçe\)](#) [Україна \(Українська\)](#) [United Kingdom \(English\)](#) [Argentina \(Español\)](#) [Brasil \(Português\)](#)
- [Canada \(English\)](#) [Canada \(Français\)](#) [México \(Español\)](#) [Zona Tropical \(Español\)](#) [USA \(English\)](#)

Naturalliance is for guiding people to restore and sustain the riches and services of nature wherever they live.

[Read these pages to understand why this is important or click here for information on where you live \(English\)](#)

## Earth's ecosystems and their resources.

Imagine the earth as a soccer ball held between your outstretched hands. The ecosphere, or layer which supports life above and below ground or water, is less than the thickness of a fingernail! That fragile ecosphere contains a beautiful mosaic of systems, composed of plants, animals and other organisms, with the ground, water and air that support them. We are a part of these ecosystems, which include forests, mountains, grasslands,



Use of Ecosystems

Protect and Sustain

Adapt to Change

Natural Governance

Some Solutions

# **The initial Translation Team**

Dr Loay Frookh (Arabic), Dr Sonya Zlatanaova (Bulgarian),  
Dr Viktor Šegrt (Croatian), Dr František Urban (Czech), Piet Wit  
(Dutch), Prof Mari Ivask (Estonian), Julian Mühle/ Veronique  
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Dr Marina Rosales (Spanish), Dr Madeleine Nyman (Swedish),  
Ömer Borovali (Turkish) Dr Tahir Rashid (Urdu), Dr Tetiana  
Gardashuk (Ukrainian)

**Thanks to all for their good and timely work,**

and to a Content Committee including Adrian Lombard, Julie  
Ewald, Kartik Shanker, Madeleine Nyman, Marina Rosales Benites  
de Franco, Maya Basdeo, Meera Anna Oomen and Scott Brainerd.

# Keep it simple, stupid!

For building content in a master language, it is especially important not to use science jargon. For Perdixnet and naturalliance.org we had a notional target of the 16-year-old daughter of the local farmer. Translation is easiest with simple, unambiguous text, too.

Need to fit language varying in length and direction means that content and image structure also has to be simpler than on flashy sites built in one language.

# Development strategy/business plan

State funding – failed

Crowd-funding (too early) – failed

Local subscription for SYCL sites ....

Subscription p.a.	€ 99.00			Comments
Sites per country		50	400	Non-profit Admin organisation contracts with the software provider(s) for SYCL, using the GWCT/Anatrack licensing model.
Countries		5	40	
<b>Total sites</b>		<b>250</b>	<b>16000</b>	
CoCo share 1st 100 sites	€ 40.00	€ 2,000.00	€ 4,000.00	Country Coordinators are rewarded strongly for build to 400 users, after which general adoption is likely with less effort.
2nd 400	€ 27.00	€ 0.00	€ 8,100.00	
subsequent	€ 15.00	€ 0.00	€ 0.00	
<b>Total CoCo pa</b>		<b>€ 2,000.00</b>	<b>€ 12,100.00</b>	

# Development strategy/business plan

State funding – failed

Crowd-funding (too early) – failed

Local subscription for SYCL – failed so far

From IAF, is keeping software initiative alive.

From FACE, BASC, Anatrack, Robin Sharp CB

**Thank you!**

Where next, towards (i) extensive/use coverage

(ii) decision support ‘killer-app’?

**Back to state funding, e.g. UN? Tourism?**

# Conclusions:

- Networks, with expert translation on cultural cohesion sites linked to local culture sites, can transfer ideas and best-practice rapidly horizontally, as well as vertically.
- This is a way to change the thinking on conservation through use of ecosystem services (e.g. Nature-based Solutions), but is best practise advice enough?
- Changing the system (Machiavelli's insight) also needs tools to enable change easily, hence motivate change.
- Among IUCN members who benefit from wild resource use, falconers and other hunters are well-organised, motivated and work well with farmers (e.g. in clusters) and civic-groups to organise web-projects.
- **Funding for a civic system is an unsolved problem.**



**Thank you  
for listening**

[www.naturalliance.eu](http://www.naturalliance.eu)

[www.sakernet.org](http://www.sakernet.org)

[www.perdixnet.org](http://www.perdixnet.org)

[www.naturalliance.org](http://www.naturalliance.org)

Workshop for European Region,  
Karlovak, Croatia, 23 April 2019.



SUME: Sustainable Use and  
Management of Ecosystems





**Workshop for European Region,  
Karlovak, Croatia, 23 April 2019.**



**SUME: Sustainable Use and  
Management of Ecosystems**



# Local subscription for SYCL ....

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Countries		5	40	
<b>Total sites</b>		<b>250</b>	<b>16000</b>	
ESUG share 1st 500 sites	€ 10.00	€ 2,500.00	€ 5,000.00	Admin costs are at first mainly travel and meetings, but will require staff when more than about 20 Country Coordinators and projects need support.
subsequent	€ 6.00	€ 0.00	€ 93,000.00	
<b>Total Admin pa</b>		<b>€ 2,500.00</b>	<b>€ 98,000.00</b>	
Royalty+server 1st 1000	€ 20.00	€ 5,000.00	€ 20,000.00	Payback+Royalty model, as server fees are currently about €5 per site up to about 250, reducing to about €2.5/site above 1000
subsequent	€ 10.00	€ 0.00	€ 150,000.00	
		<b>€ 5,000.00</b>	<b>€ 170,000.00</b>	
		pipeten	rackspace	
whereof serving		€ 750.00	€ 40,000.00	
<b>Total R&amp;D share pa</b>		<b>€ 7,250.00</b>	<b>€ 832,000.00</b>	R&D goes initially to pay off software cost and maintenance. Beyond about 1000 users it funds contracts for further software (e.g. iGIS) and support projects.

# Creating two sorts of network:

1. Best-practise linking & dissemination,  
e.g. [www.naturalliance.eu](http://www.naturalliance.eu)  
**www.amfalcon.org?**
2. Multilingual Online Research/Restoration  
Project Hostings  
e.g. [www.perdixnet.org](http://www.perdixnet.org)  
mapping community level ecosystem services?

# **Approach for best-practice dissemination:**

1. Create Multilingual Cultural Converger (MCC) content team, agree content, upload 1<sup>o</sup> language;
2. Appoint translator(s) and checkers for each language, translate/check each language;
3. Build SYCL site in 1<sup>o</sup> language for one country as example;
4. Agree coordination for each new country, starting with cultures translated on MCC, with aim of linking in all related web-sites, other media material (e.g. videos) and relevant science;
5. For national cultures that aren't so active on 4, agree common pages with a more active participant in that language.

# Beyond 1-4 for Multilingual Online Restoration Project Hostings:

## Learning from Perdixnet

It is critical to have country/culture coordination, probably based initially on those involved in MCC translation and checking, who agree on creation of a cohesive (bonded) small team for web-design, internal cultural connectivity and external science connectivity.

# The Dual Approach Vision

**“a much more biodiversity friendly mosaic of land uses driven by the livelihoods that are derived from the sustainable use of wild living resources, instead of landscapes with small islands of biodiversity in a sea of agriculture”**

**Jon Hutton & Nigel Leader-Williams (2003)**  
Sustainable use & incentive-driven conservation .... **Oryx 37:215-226.**

# So, ecology & economics & CBD suggested A Second Pillar for Conservation

## Protection (sticks)

- **Laws for Species**
- **Habitat Reserves**
- Educational
- *Polarising*
- 12% of land (17%?)

## Incentives (carrots)

- **State subsidy**
- **Conserve-by-use**
- Culture-friendly
- *Complex*
- everywhere?

**Conserving=Protecting**     **BARELY STARTED!**

Moreover, the question remains, who pays?

**SPEND: Hunting**

**Angling**

**Watching**

**(in 2006)**

**USA**

**\$23 billion**

**\$41 billion**

**\$45 billion**

**US government survey of wildlife-related activity:**  
**87 million adults (38% population) spend \$120 billion**

**European**

**Union**

**€16  
billion**

**€19  
billion**

**€8  
billion**

**GEMCONBIO survey of hunting, angling, watching:**  
**34 million adults (7% population) spend >€40 billion.**



# Exchanging decision-support for local knowledge and actions

<b><u>SCALE</u></b>	<b><u>CONTEXT / QUESTION</u></b>	<b><u>OPERATION MODE</u></b>
<b>Field</b> individual	<b><u>! BEEP !</u></b> <b><u>HARRIER NEST AHEAD</u></b>	<i>Satnav diverts harvester for 20 meters.</i>
<b>Garden</b> individual	Is it too soon for the Nyphalid butterflies if I cut the nettles now?	<i>Intelligent GIS on tablet</i>
<b>Farm</b> individual	If I use my land like this in future, what happens to my income, game bags and nitrate run-offs?	<i>Auto-guides on farm plan: optimizing game, fishing and farm income.</i>
<b>Parish</b> community	How do we route this path to optimise views while minimising erosion and wildlife disturbance?	<i>Headland mapping GIS: walking (pay-parking), horse-riding (licence).</i>
<b>Higher government</b>	If trends in land-use continue for 20 years, how can we still meet planned biodiversity targets?	<i>Scenario: model subsidy payments for leveraging sustainable use activities.</i>

# With a multilingual mapping tool (here for grouse habitat mapped over an aerial photograph) ...

Anatrack Mapper for TESS - LangholmTest - 15 Oct 2014 10:08:04

File Edit Help

Mapping Type

- Habitat A
- Habitat B
- Habitat C
- Habitat D
- Habitat E
- Habitat F
- Habitat G
- Habitat H

Mapped Objects

- 55. -hole
- 56. -hole
- 57. -hole
- 58. -hole
- 59. -hole
- 60. Habitat A
- 61. Habitat B
- 62. Habitat G

Area Details

Area Points
2427.257, 1756.374
2417.5, 1763.47
2405.969, 1775.001
2403.309, 1781.21
2399.761, 1788.305
2387.343, 1784.758
2378.473, 1777.662
2362.507, 1774.114
2361.62, 1763.47

-187.003, 55.12966 No GPS device Moved point 27 in shape 60. Habitat A Add, edit or delete mapped objects

11:37 25/10/2014

# ... to be assessed with software to provide decision support enhancing game habitats

Ranges v0.10. For the Analysis of Tracking and Location Data, Anatrack Ltd.

About | Location | Overlap | Interaction | Habitat | Modelling | Statistics | Log | Help

Data: open new import modify export save

Background: full clipped open close

Edge Shapes

Ran...	ID	Age	Sex	Month	Year	Core
1	0	X	X	1	0	0%

Edge Vertices

No.	E	N
1	484.527	482.33624
2	484.527	1000
3	837.92426	1000
4	837.92426	482.33624
5	484.527	482.33624

Ranges Analysis Log

```

Log rank chi-square values with 1 d.f.: 0.144389, 0.12116 and 0.118949
Z for difference between 0.173714 and 0.20187: -0.22692 (Greenwood) and -0.3047

Analysis completed successfully on Fri Oct 24 15:35:44 BST 2014

-----
Analysis started on Sat Oct 25 11:15:56 BST 2014

Initialising analysis ... please wait ...

Map category areas in m2
filed in : C:\Users\dixons\Documents\Ranges\temp.csv
Road                2326.5          1.3%
OldHeather          35648          19.5%
Grass                20248          11.1%
YoungHeather        15402           8.4%
Heather             30978          16.9%
Grass/Heather       56682          31.0%
Heather/Grass       21943          12.0%

Extents edge filed in
C:\Users\dixons\Documents\Ranges\temp.edg

Analysis completed successfully on Sat Oct 25 11:15:57 BST 2014
    
```

Ranges Statistics

open

row	W-edge	E-edge	S-edge	N-edge	TotalAre...	Road	OldHe...	Grass	Young...	Heather	Grass...	Heath...
1	484.527	837.92...	482.33...	1000.0	182940.95	1.3	19.5	11.1	8.4	16.9	31.0	12.0

include range centres selection

200m

Windows taskbar: 11:22 25/10/2014