Conservation through Use of Wild Resources: examples from falconry

Prof Robert Kenward (chairing Sustainable Use & Management of Ecosystems in IUCN)
INTERNATIONAL UNION FOR CONSERVATION OF NATURE

Founded in 1948
World meeting every 4 years (2016 Hawaii)
3 pillars include (i) Staff: >1000 in 45 offices; (ii) Members: 89 States, 1036 Non-Government; (iii) Six Commissions contain ~20,000 experts.

- World Commission on Protected Areas
- Environmental Economic and Social Policy
- Species Survival - Sustainable Use & Livelihoods (SULi)
- Ecosystem Mgmt - SU & Managing Ecosystems (SUME)
- Communication and Education
- Environmental Law

IAF Officers in SULi & SUME coordinated SU in Hawaii
IUCN Sustainable Use in Europe

2005-8: EU funds Governance & Ecosystem Mgmt for Conservation of Biodiversity (GEMCONBIO)

Bern Convention: Charter on Hunting & Biodiversity

2008-11: EU funds design of a Transactional Environmental Support System (TESS).

2010 Charter: Recreational Fishing & Biodiversity

2011: Multilingual (23 language) Naturalliance portal launched ([http://www.naturalliance.eu](http://www.naturalliance.eu)).

2013: Charter - Fungi-Gathering & Biodiversity

CEM Sustainable Use & Management of Ecosystems (SUME) 

SSC/CEESP Sustainable Use and Livelihoods (SULi)
What does a Charter do?

• It gives recognition by Bern Convention of the potential from resource use as an important tool in biodiversity conservation.

• It places hunting / fishing / gathering within the context of CBD sustainability principles (ecological, economical and sociocultural).

• It emphasises the need for involvement of those who use resources in biodiversity monitoring, research and management.

• It gives governments responsibility for enabling and encouraging this.

• It starts moving from “don’t” towards “do”
### Do as well as Don’t
(to meet 2020 Targets)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Negative: regulate and stop local actions</th>
<th>Positive: engage &amp; motivate local actions</th>
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<tbody>
<tr>
<td><strong>Sustainable Use</strong></td>
<td>Don’t (over-) harvest</td>
<td>Do conserve habitats through sustainable use of species</td>
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<tr>
<td><strong>Invasive Non-Native Species</strong></td>
<td>Don’t release alien invasive species</td>
<td>Do remove those that are present</td>
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<td><strong>Ecosystem Management</strong></td>
<td>Don’t harm species and habitats</td>
<td>Do restore species and habitats</td>
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<td><strong>Stakeholders</strong></td>
<td>Are problems</td>
<td>Are the solution</td>
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A charter is Top-down. What about local level?

GEMCONBIO+TESS SURVEYED SPENDING

Across 30 European states:

- **Hunting game-birds, deer** (FACE, CIC)
- **Freshwater fishing** (Anglers Alliance)
- **Bird-watching** (BirdLife Partners)
- **Fungi, plant products**: where possible

Gave good spending data from **hunters**, some for **anglers**. Community follow-up in TESS project gave estimates also for **bird-watching** and ‘gathering’. 
GEMCONBIO+TESS findings: How do 120,000 local communities utilise their environment?

- ≈ 100 million citizens, spending €62 billion p.a.
- Can these passionate people help Conservation?
- Mapping & GIS, Restoring, Nature Ambassadors?
GEMCONBIO and TESS conclusions

Study of national government and local communities (30 European countries, detailed case study in 8)

- Conservation is about use of land and species.
- Little land is strictly protected, much more is managed.
- ≈ 100 million European citizens depend on wild living resources for recreation (e.g. watching, gathering, angling, hunting); private spend on these ecosystem services is ≈ €62 billion/yr; public CAP <€60 billion)

- How to enlighten, enable and encourage local people to conserve through their enjoyment, both consumptive and aesthetic, of wild resources?
Community Conservation

When spending money and making decisions, what help do local people need to conserve their biodiversity and ecosystem services?

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

What is available?
What can they contribute?
Species and habitat maps?

TESS ran eight Community Conservation projects. Five were organised by hunters.
Remote mapping (LCMGB) is a wonderful tool, but decision support predictions by modelling species needs mapping at field, park & even garden scale. Satellite mapping therefore needs complementing by details of fine-scale ground-based maps. (by Swedish hunters, 1985)
Community Project: Deer

Arne Parish in southern UK
1,200 citizens, 27 km²

- In gardens
- In forestry
- On farms
- For wildlife habitats
- On roads
In Arne Parish (UK) citizens were good at recording deer sightings & damage.

Systematic survey of deer by a post-doctoral biologist.

Hunter-organised: 800 public sightings gave best density & damage data.
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2013: Charter - Fungi-Gathering & Biodiversity.

2013-16: Saker work for Bonn Convention & IAF, including multilingual http://www.sakernet.org

2016: Launching SYstem for Community Liaison to network local organisations (http://sycl.net).
Is this how to engage wild resource users?

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

Not exactly.
... but multilingual sites can network to 1000s of local community sites to organise projects.
Easy to edit local sites, costing only €99/year, meet all requirements of local communities ...
The Purbeck Careline Appeal

The Appeal aims to help support local people in maintaining their independence within the community, by sponsoring the rental and monitoring of a special Lifeline unit.

Dog Walk along the Water Meadows of Wool - Finish with a cream tea
15 May 2016

Tickets are £5

Order them here

For the route of the walk see here

The Careline Appeal is a small registered charity which was originally formed over 25 years ago. It has a formal constitution and elected Trustees.

The Careline Appeal aims to assist the elderly, the disabled, those who are terminally ill, victims of crime and victims of domestic violence and more recently child carers and their families. In essence anyone who, for whatever reason, may be vulnerable and who fall outside the criteria for assistance from other agencies.

A Lifeline is a specially designed unit which enables people to summon assistance. Each Lifeline telephone has a small pendant programmed to it. In an emergency, by simply pressing the pendant, a call is generated to a Community Alarm Service in Bournemouth. As each Lifeline has its own unique identity number and is linked to a state-of-the-art computer system, the operator will know who is calling (even if the person is unable to communicate) and can summon the appropriate assistance, provide advice, comfort and reassurance.

Every penny raised goes to support local people, there are no paid staff and none of the trustees or volunteers claim expenses.
... or even tourism in the countryside.

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

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
The System for Community Liaison (SYCL), is about to launch in 12 languages (German is translated but needs uploading), with links ...

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to monitor saker populations with CMS & IUCN

![Diagram showing relationships between various stakeholders in falconry, including management, local landfolk, NEST AREAS, Falcon Hospitals, Trappers, Falconers, Middlemen, Dispersed/Migrant Saker Areas, and Governments. The diagram includes arrows indicating payments, data, and regulation.]
Scope for monitoring from use in Europe too

Domestic bred raptors for falconry: 10,000 pa
Goshawk value by breeding: €750-€1,000
Pairs of wild goshawks in Europe: 55,000
Young of wild goshawks in Europe: 100,000 pa
Demand for falconry: 1-2,000 = €1.5-2 million
EU-recognised value: sustainable use of raptors

Education (hands-on attracts the young)
Research (e.g. breeding, predation, disease)
Management (e.g. release, pest-control)
Conserving through Use (what pays, stays!)

But concern about wildlife crime & hybrids.
BirdLife recorded large Peregrine populations in EU states with high numbers of falconers, giving no evidence of damage to this species.

\[ R^2 = 0.61, \text{ d.f.} = 22, \text{ } P < 0.001 \]
Falconers use few hybrids where they have good access to wild raptors (IAF data 2002).

Conservation value from use of game too!
Falconry is a very old form of hunting ...

Recognised by UNESCO, with high conservation potential & low impact
Grouse-moors are an important biotope, sustainable by wild resource use alone.

<table>
<thead>
<tr>
<th>Harvest parameters</th>
<th>Shooting (driven grouse)</th>
<th>Shooting (walking-up)</th>
<th>Falconry</th>
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<tbody>
<tr>
<td>Grouse/hunter/day</td>
<td>ca. 25</td>
<td>ca. 10</td>
<td>e.g. 0.3</td>
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<td>Total value/grouse killed</td>
<td>est. € 100-200</td>
<td>est. € 27-40</td>
<td>e.g. € 325</td>
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Grey Partridge needs restoration too, right across Europe - e.g. in Germany:

Source: DJV, Deutscher Jagdverband e.V., German Hunters Association
Restoration in UK guided by Game and Wildlife Conservation Trust (GWCT)

Restoration of a wild grey partridge shoot:
a major development in the Sussex study, UK
(2012 Ewald J A. et al.)

Measurements 2004 to 2010 for experimental area (circles) vs control (triangles), pairs (top) & post-breeding (below)

IAF, with GWCT & ESUG, now runs Perdixnet
Development of our portals

The origin of the ESUG portals was the TESS project, which identified that needs for information of local communities were especially strong in the context of socio-economics, for planning development and managing what are often called ecosystem services. There was much information in English, but often little in local languages. The naturalliance portal, now in 23 languages, was therefore developed for communities of interest at local level, essentials clubs and managers of local land and species.

A second stage of this work is the System for Community Liaison, which is intended to help any local community to manage its affairs but also be linked for projects on conservation (and in due course health, etc, too). Examples are already on line for Arne Parish Council and East Stoke Community in Dorset and a tourist business at local level, this site at European level and for Saker Falcon interests at global level.

Portals using these templates are proposed to offer internet support for local conservation projects that engage different countryside interests on:

- Managing large mammals, especially around human settlements
- Restoring local micro-habitats for small game and pollinators
- Community recording and removal of invasive alien species
- Mapping and restoring local ecosystem services

Cooperating governments, groups and individuals to plan and support projects in the central column are also very welcome to get in touch.
Rewitalizacja siedlisk

Kuropatwa składa podczas lęgu od 10 do 20 jaj. Przy dobrej zaopatrzonym w naturalne pożywienie, wliczając w to całoroczny dostęp do nasion roślin i do owadów, gdy młode szybko rosną, populacja kuropatwy może się zwiększyć w mgnieniu oka. Mimo to, jako gatunek, który może występować licznie, gniazdujący na ziemi i charakteryzujący się budową najlepiej oddawaną słowa "puchną" i "kragła" kuropatwa stanowi atrakcyjne źródło pożywienia dla wielu drapieżników. W związku z tym ptaki te prosperują najlepiej na terenach z dobrą schronieniem ziemnymi przed ssakami w czasie znoszenia i wysiadywania tak dużej ilości jaj. Zaleca się również obecność niewielkiej liczby drzew będących siedziskami dla myszołów, jastrząbów i krukowych (patrz: link w Menu dla "Drapieżnictwo"). Tam, gdzie rolnictwo pozostawia niewiele ziaren zbóż po zniwach, inne odpowiednie uprawy (lub dokarmianie) nabierają znaczenia. Zróżnicowanie dzikich roślin jest wysoce pożądana, aby zapewnić nasion w ciągu roku lub wesprzeć owady, niezbędne do karmienia piskląt kuropatw i innych gatunków ptaków polnych.

Wymagania siedliska kuropatwy zwyczajnej różnią się w ciągu roku co odzwierciedlają cykle ich życia. Zapotrzebowanie na pokarm, ochrona przed drapieżnikami i przed złą pogodą różni się podczas gniazdmowania, odchowywania młodych i po letnich zniwach. Na każdym etapie rozwoju potrzebne jest odpowiednie środowisko. Załamanie i niszczenie środowisko na każdym z etapów różni się w zależności od danego kraju i danego obszaru. Zakres oddowy dzikich roślin inny jest dla terenów prywatnych, publicznych, rolnych, w parkach czy na poleczach orćg.

Środowisko gniazdomowania i chowu młodych

Kuropatwy spędzają w gnieździe 5 do 6 tygodni podczas składania i wysiadywania swoich dużych jaj. Stanowi to potrzebę dodatkowej ochrony przed wykrękiem przez ssaki i ptaki szponiaste (które mogą zabić samice) jak i przed krukowatymi (żywicielmi się jajami), dodatkowo ważne jest dobrze drenaż podczas deszczy. Diagram przedstawia podniesioną miedzę lub granice pola z żywopłotem między polami. Wysokie kępy traw i gęsta roślinność osiadam gniazdo. Przy braku zarośniętych granic, "banki chrzaszczy" - pasy wysokich traw na polach, mogą pomóc uzyskać niezbędną ilość owadów, żyjących się szkodnikami upraw, jak i zapewnić miejsce na gniazda.

Aby środowisko było odpowiednio przystosowane dla lęgu kuropatwy, musi oferować im osłonę przed drapieżnikami oraz pożywienie. Wysokie uprawy zapewniają dobre schronienie przed ptakami szponiastymi. Kuropatwy jednak poza nasionami, którymi żyją się cały rok, w swojej diecie...
Conclusions:

- Private effort and Payments for Ecosystem Services have large potential for conservation.
- Local managers of farms, forest, hunting, fishing and reserve areas can all contribute.
- Among wild resource beneficiaries, hunters are well-organised and also work well with farmers, civic-groups & local councils to organise projects.
- European Charters for sustainable use are being complemented locally by internet tools to get all interests working together to conserve nature.
- Among bottom-up projects managing ungulates, predators, aliens and habitats, game research & falconry are starting to restore farm ecosystems.
Thank you for listening

www.naturalliance.eu www.perdixnet.org