Acrocephalus 33 (154/155): 217–223, 2012

A preliminary overview of monitoring for raptors in France

Predhodni pregled monitoringa populacij ptic roparic v Franciji

Jean-Paul Urcun
Observatoire Régional de la Migration des Oiseaux, LPO Aquitaine, Erdoia, F–64120 Luxe-Sumberraute,
e–mail: jeanpaulurcun.lpo@neuf.fr

Metropolitan France boasts a high number and significant populations of breeding raptor species in Europe. Furthermore, it is located on major migration route for diurnal raptors. This wealth of raptors has certainly contributed to the creation of a wide network of volunteers tutored by NGOs. These, especially the "Ligue pour la Protection des Oiseaux" (LPO), the French partner of Birdlife International, play a key role in monitoring for raptors, including the most threatened species, both nationally with many specific networks and at regional or local level. This participatory involvement is certainly an asset for the development of monitoring programmes on a large scale. Unfortunately, no major raptor research has been carried out by academic experts in France, especially in the field of monitoring of the environment through raptors. Improving this situation by a closer dialogue between academic experts and fieldworkers and a better knowledge of common species are the main future challenges.

Key words: raptor monitoring, diurnal raptors, owls, France
Ključne besede: monitoring ptic roparic, ujede, sove, Francija

1. Introduction

France boasts rich raptor fauna, with 35 species of breeding raptors (26 diurnal with the recent re-addition of Lesser Spotted Eagle *Aquila pomarina* in 2004; Michelat 2007 and White-tailed Eagle *Haliaeetus albicilla* to the list in 2011; Le Roy 2012, and 9 nocturnal ones) (BirdLife International 2004) and a key geographical position in the Western European–West African Flyway for migrating diurnal raptors (Zalles & Bildstein 2000). Monitoring for raptors is well-developed with a large network of volunteers trained by numerous non-governmental organizations (NGOs).

Due to its geographical situation and diversity of landscapes and climate, France hosts the second (after Spain) largest number of breeding raptors species in western part of Europe. Moreover, some of the largest populations of particular species (e.g. Honey Buzzard *Pernis apivorus*, Black Kite *Milvus migrans*, Short-toad Eagle *Circaetus gallicus*, Montagu's Harrier *Circus pygargus* etc.) are found in France. This gives the country a major responsibility in conservation at the European level (BirdLife International 2004, Burfield 2008).

Large number of migrating raptors belonging to 25 species (including Honey Buzzard, Buzzard *Buteo buteo* and Black Kite as the most numerous) also cross the French territory to reach their winter quarters in Africa or on the Iberian peninsula, including non-breeding rare and endangered species such as Pallid Harrier *C. macrourus*, Eleonora's Falcon *Falco eleonorae* or Lesser Spotted Eagle. This gives the opportunity to develop a large network of watchpoints, where enthusiasts spend from a few hours to four or five months detecting, identifying and counting raptors among other species. The aim of continuous surveys is to acquire phenological and population indices related to changes in population size or climate change.

2. Main players

NGOs, especially the French partner of BirdLife International, "Ligue pour la Protection des Oiseaux" (LPO), but also other ornithological organizations at the regional level (more than 100 different ones) are

the main players for conducting the fieldwork. The National Forests Office (Office national des forêts, ONF) and The National Hunting and Wildlife Agency (Office National de la Chasse et de la Faune Sauvage, ONCFS), two governmental services, are also involved in raptor monitoring in the field. The National Centre for Scientific Research (Centre national de la recherche scientifique, CNRS) and the National Museum of Natural History in Paris (Muséum national d'histoire naturelle, MNHN) are the two main actors for data analyses.

International collaboration involves mainly Spain, Italy and Switzerland, depending on species or programmes, particularly those sponsored by LIFE or INTERREG European Union funds, like reintroduction programmes under LIFE Nature project "Reinforcement and conservation of Lesser Kestrel populations in Aude (FR) and Extrémadure (ES)" (LIFE05 NAT/F/000134 "Conservation et renforcement du Faucon crécerellette dans l'Aude (France) et l'Estrémadure (Espagne)", 2005–2009) or INTERREG "NECROPIR" project (conservation of scavengers in Pyrenees). For migration monitoring, the French network is taking an active part in the construction of the Euromigrans network (The Western Palearctic Bird Migratory Network).

Data are mainly used by organisations conducting the fieldwork themselves. When species concerning the National Action Plans are at stake, the work is ordered by the French government. The main goal of the monitoring activities is conservation of raptors species.

3. National coverage

At the French level, a large majority of monitoring activities is coordinated by the "Mission Rapaces" (The Raptors Study Group), an LPO's service, by means of a group of networks devoted to one species each or to a group of species (e.g. Réseau Milan royal for the Red Kite or Réseau Busards for harriers). Each network publishes a regular newsletter, with annual special issue of the *L'oiseau* magazine "Rapaces de France" giving an annual synthesis of the national monitoring of every breeding species. The status of rare species is also reviewed annually in the *Ornithos* journal.

The monitoring is carried out quite uniformly across the country with regional focuses on species depending on their distribution (e.g. Black-winged Kite *Elanus caeruleus* in Aquitaine). A national survey programme named *Observatoire Rapaces* (Raptor Observatory) began in 2002 (Thiollay & Bretagnolle 2004). It is based on a randomized 5 × 5 km square coverage. In each square, all breeding diurnal raptors are counted and classified as confirmed, probable or possible breeding pairs. A statistical analysis (ordinary kriging) predicts the spatial distribution and number of pairs at the national level.

The French programme of the Pan-European Common Bird Monitoring Scheme *Temporal Survey of Common Birds* (Le Suivi Temporel des Oiseaux Communs, STOC-EPS; http://vigienature.mnhn.fr/page/le-suivi-temporel-des-oiseaux-communs-stoc), coordinated by the "Centre de Recherches sur la Biologie des Populations d' Oiseaux" (CRBPO) also provides information on common raptors such as Kestrel *F. tinnunculus* or Sparrowhawk *Accipiter nisus* at the national scale. Main monitoring programmes for breeding raptors are listed in Appendix 1.

A network of 93 study sites (Figure 1) exists in France specifically for monitoring of migratory birds, including raptors, under the coordination of the "Mission Migration" (The Migration Study Group), which is an alliance of seven partners (LPO France, Le Clipon, Organbidexka Col Libre, Groupe Ornithologique Normand, Picardie Nature, Amis du Parc Naturel Régional de Corse, Centre Ornithologique Rhônes-Alpes) created to improve exchange of protocols, data and experiences through a shared web-based database (http://www.migraction.net). However, watchpoints differ significantly in terms of duration of counts, time period and regularity of counts, including some with continuous survey lasting more than 30 years (like the Organbidexka Pass in the Pyrenees) and others lasting only a couple of days.

4. Key species and key issues

All raptor species are monitored in France, although with different accuracy. The species of higher conservation concern (listed in the national Red List, Birds Directive, different conventions etc.) like Lammergeier *Gypaetus barbatus*, Egyptian Vulture *Neophron percnopterus*, Black Vulture *Aegypius monachus*, Red Kite *M. milvus*, Osprey *Pandion haliaetus*, Lesser Kestrel *F. naumanni*, Bonelli's Eagle *A. fasciata* and Little Owl *Athene noctua* benefit from the National Action Plans mainly managed by LPO. These plans are prepared by the French government. Their implementation is most often allotted to non-governmental organizations. The conservation programmes include as far as possible also an exhaustive monitoring of the birds' distribution, density, breeding success, causes of mortality, movements, etc. (http://rapaces.lpo.fr). Without a National Action

Plan, the Griffon Vulture *Gyps fulvus* benefits from the same quality of monitoring in reintroduction areas such as Gorges de la Jonte, Gorges du Verdon, Vercors or the Baronnies in south-eastern France. For all the other commoner species that are not covered by any National Action Plan, only distribution and density are monitored throughout the "Observatoire Rapaces" at the national level. STOC-EPS also provides valuable information on population changes.

Local or regional monitoring activities exist here and there. For owls, except Tengmalm's *Aegolius funereus* and Pygmy Owls *Glaucidium passerinum*, which are monitored at the national level, only local monitoring is carried out. Such example is the work carried out by the NGO "La Choue" in Bourgogne on Tawny Owl *Strix aluco*, Barn Owl *Tyto alba* and Long-eared Owl *Asio otus* (http://la.choue.free.fr/index.php?p=pages&title=publications).

Concerning the most endangered species (those covered by the National Action Plan) in France, only the Bonelli's Eagle (whose population has more or less stabilized during the recent years), and perhaps the Red Kite populations have been decreasing since the beginning of the 1990s. All others are increasing (LPO Mission Rapaces 2012; http://vigienature.mnhn.fr/page/resultats-par-especes). Monitoring of the common species started only recently, so it is impossible to draw any conclusions on their trends as yet.

Through monitoring programmes, the most important threats have been highlighted:

- Loss of habitat caused by changes in agricultural practises or increased urbanization is the major threat.
- Disturbance during breeding season, which affects the most sensitive species (e.g. Lammergeier).
- Poisoning as a deliberate act or as a consequence of use of rodenticides, which is also a significant cause of mortality for some species (e.g. Red Kite), combined with chronic lead poisoning due to the ingestion of lead ammunition spent by hunters.
- Poaching as an additional threat.
- Power lines and wind turbines through electrocution or collision, which could have a significant impact on some species (e.g. Bonelli's Eagle).

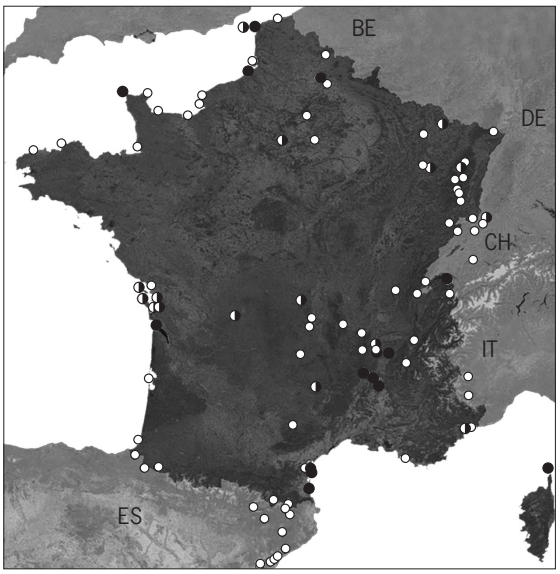

Figure 1: Locations of watchpoints in the French migration study network (after http://www.migraction.net; satellite image is courtesy of NASA/JPL-Caltech); black dots – spring survey, white dots – autumn survey, two-coloured dots – survey in both seasons

Slika 1: Lokacije opazovalnih točk v francoskem omrežju za preučevanje selitev ptic (http://www.migraction.net; satelitski posnetek z dovoljenjem NASA/JPL-Caltech); črne pike – spomladanski popis, bele pike – jesenski popis, dvobarvne pike – popis v obeh sezonah

5. Strengths, weaknesses and future priorities

The major strength of the monitoring for raptors in France is the fact that it rests on highly skilled volunteers trained by NGO's professionals. This enables an efficient and continuous transfer of skills through the network and promotes best practices. It also enables work on a large spatial scale. Another strength is the existence of a national coordination of the network allowing implementation of projects on a large time scale as well as a better attention of both local, regional or governmental authorities. And finally – which is perhaps even the most important – we can claim that volunteers, professionals from NGOs or official agencies are raptor enthusiasts.

Not surprising for the French network mainly based on NGOs, the unstable funding is the main weakness of the monitoring, as it often depends on fickle national public policies. Another weakness could be the relative lack of interest from French universities in monitoring for raptors, but also in raptors generally. It results in difficulty in finding students to work on data, as they are not able to be tutored academically.

If endangered or charismatic species are quite well monitored, more common ones (e.g. Hobby *F. subbuteo*, Kestrel, Sparrowhawk ...) as well as owls suffer the lack of knowledge. Particularly, effects of land-use change in general and agricultural practices, especially on raptors are not well monitored, as well as the impacts of biocides or poisons directly or through bioaccumulation. At even if volunteers for raptors

are numerous in France, they are not sufficiently numerous to cover all the fields of monitoring for raptors.

It seems that the priority of monitoring for raptors in France lies in intensifying the monitoring of "common" species and owls as well as of species using "commonplace" (e.g. unprotected areas or farmlands) habitats. It would permit linking of monitoring *for* raptors to the environmental monitoring *with* raptors. This would require – at least in France or perhaps more efficiently at the European level – a closer connection between raptor enthusiasts as data collectors and scientists as producers of indices.

6. Povzetek

Francija se lahko pohvali z velikim številom in evropsko pomembnimi populacijami gnezdečih ptic roparic. Poleg tega prek nje potekajo tudi selitvene poti ujed. Prav to bogastvo ptic roparic je prispevalo k oblikovanju široke mreže prostovoljcev, ki jih za to delo urijo različne nevladne organizacije. Med njimi je najbolj dejaven LPO, francoski partner organizacije Birdlife International, ki igra glavno vlogo pri monitoringu za ptice roparice, vključno z najbolj ogroženimi vrstami tako na nacionalni ravni z vrsto specifičnih omrežij kot tudi na regionalni ali lokalni ravni. Prav to sodelovanje udeležencev je veliko pripomoglo k razvoju programov monitoringa v najširšem obsegu. Žal pa ni bila nobena pomembnejša raziskava o pticah roparicah v Franciji opravljena na akademski ravni, še posebno na področju monitoringa okolja prek ptic roparic. Tako med največjimi izzivi v tej državi še vedno ostajata izboljšanje trenutnega stanja s tesnejšim dialogom med akademskimi izvedenci in terenskimi sodelavci in boljše poznavanje pogostih ptic roparic.

7. References

BirdLife International (2004): Birds in Europe: population estimates, trends and conservation status. BirdLife Conservation Series No. 12. – BirdLife International, Cambridge.

Burfield, I. J. (2008): The Conservation Status and Trends of Raptors and Owls in Europe. – Ambio 37 (6): 401–407.

Le Roy, C. (2012): [White-tailed Eagle. Monitoring report 2011.] – Rapaces de France 14: 45. (in French)

LPO Mission Rapaces (2012): [Monitoring report 2011.] – Rapaces de France 14. (in French)

Michelat, D. (2007): [Lesser Spotted Eagle. Monitoring report 2006.] – Rapaces de France 9: 16. (in French)

Thiollay, J.-M. & Bretagnolle, V. (2004): [Breeding raptors in France: distribution, numbers and conservation.] – Delachaux et Niestlé, Paris. (in French)

Zalles, J.I. & Bildstein, K.L. (eds.) (2000): Raptor watch. A global directory of raptor migration sites. BirdLife Conservation Series No. 9. – BirdLife International & Hawk Mountain Sanctuary, Cambridge.

Arrived / Prispelo: 27. 3. 2013
Accepted / Sprejeto: 1. 7. 2013

APPENDIX 1 / DODATEK 1

Main monitoring programmes on breeding raptors in France during the 21st century

Glavni programi monitoringa gnezdečih ptic roparic v Franciji v 21. stoletju

National network – working group established under the Raptors Study Group (LPO Mission Rapaces)
Raptor Observatory – national survey programme for raptors (Observatoire Rapaces)
STOC-EPS – Temporal Survey of Common Birds (Le Suivi Temporel des Oiseaux Communs)

(1) POCTEFA* – Sustainable biodiversity in the Pyrenees, the scavenging raptors, examples for the joint management; (2) LIFE Nature GYPAETE – International programme for the Bearded vulture in the Alps; (3) LIFE Nature – Large Pyrenean Fauna; (4) INTERREG – For Living Pyrenees; (5) LIFE Nature VAUTOUR – Recovery plan for the Egyptian Vulture in South-Eastern France; (6) LIFE Nature CONSAVICOR – Conservation of rare birds in Eastern Corbieres; (7) Life Nature TRANSFERT – Reinforcement and conservation of Lesser Kestrel populations in Aude (FR) and Extrémadure (ES)

* POCTEFA is the new name of INTERREG programme between France, Spain and Andorra

LPO – Ligue pour la Protection des Oiseaux (BirdLife partner in France); ONCFS – The National Hunting and Wildlife Agency (Office National de la Chasse et de la Faune Sauvage); GAN – Gestión Ambiental de Navarra; MEDDE – Ministry of Ecology, Sustainable Development and Energy (Ministère de l'Écologie, du Développement durable et de l'Énergie); GRIVE – Groupe de Recherche et d'Information sur les vertébrés; CEN-LR – Conservatoire d'espaces naturels du Languedoc-Roussillon

Continuation of Appendix 1 / Nadaljevanje dodatka 1

Species / Vrsta	National network/ Nacionalna mreža	National Action Plan/ Nacionalni akcijski načrt		Raptor Observatory	STOC-EPS	Reintroduction programme/ Program ponovne naselitve	EU programme/ Program Evropske unije		
		Duration/ Trajanje	Coordinator/ Koordinator				Project title/ Naziv projekta	Coordinator/ Koordinator	Duration/ Trajanje
Honey Buzzard *Pernis apivorus*	no	no		yes	yes				
Black-winged Kite *Elanus caeruleus*	no	no		yes	no				
Black Kite *Milvus migrans*	no	no		yes	yes				
Red Kite *Milvus milvus*	yes	2003–2007	LPO	yes	yes		1	GAN	2009–2014
White-tailed Eagle *Haliaeetus albicilla*	no	no, but local survey	LPO Champagne-Ardennes, ONCFS	no	no				
Lammergeier *Gypaetus barbatus*	yes	1997–2007, 2010–2020	LPO	yes	no	Alps	2	Asters	2003–2007
							3	MEDDE	1994–1998
							4	LPO	2003–2006
							1	GAN	2009–2014
Egyptian Vulture *Neophron percnopterus*	yes	2002–2007	LPO	yes	no		5	LPO	2003–2008
							4	LPO	2003–2006
							1	GAN	2009–2014
Griffon Vulture *Gyps fulvus*	yes	no		yes	no	Alps, Massif central	4	LPO	2009–2014
							1	GAN	2003–2006
Black Vulture *Aegypius monachus*	yes	2004–2008, 2011–2016	LPO	yes	no	Alps, Massif central			
Short-toed Eagle *Circaetus gallicus*	yes	no		yes	yes				
Marsh Harrier *Circus aeruginosus*	yes	no		yes	yes				
Hen Harrier *Circus cyaneus*	yes	no		yes	yes				
Montagu's Harrier *Circus pygargus*	yes	no		yes	yes				
Goshawk *Accipiter gentilis*	no	no		yes	no				
Sparrowhawk *Accipiter nisus*	no	no		yes	yes				
Buzzard *Buteo buteo*	no	no		yes	yes				

Continuation of Appendix 1 / Nadaljevanje dodatka 1

Species / Vrsta	National network/ Nacionalna mreža	National Action Plan/ Nacionalni akcijski načrt		Raptor Observatory	STOC-EPS	Reintroduction programme/ Program ponovne naselitve	EU programme/ Program Evropske unije		
		Duration/ Trajanje	Coordinator/ Koordinator				Project title/ Naziv projekta	Coordinator/ Koordinator	Duration/ Trajanje
Lesser Spotted Eagle *Aquila pomarina*	no	no, but local survey	LPO Franche-Comté	yes	no				
Golden Eagle *Aquila chrysaetos*	yes	no		yes	no				
Booted Eagle *Aquila pennata*	yes	no		yes	no				
Bonelli's Eagle *Aquila fasciata*	yes	1999–2003, 2005–2009	GRIVE, CEN-LR	yes	no		6	LPO	2005–2009
Osprey *Pandion haliaetus*	yes	2004–2007, 2008–2012	LPO	yes	no				
Lesser Kestrel *Falco naumanni*	yes	2002–2006, 2011–2015	LPO	yes	no	Aude	7	LPO	2005–2009
Kestrel *Falco tinnunculus*	no	no		yes	yes				
Red-footed Falcon *Falco vespertinus*	no	no		yes	no				
Hobby *Falco subbuteo*	no	no		yes	yes				
Peregrine Falcon *Falco peregrinus*	yes	no		yes	yes				
Barn Owl *Tyto alba*	yes	no		no	no				
Scops Owl *Otus scops*	no	no		no	no				
Eagle Owl *Bubo bubo*	yes	no		no	no				
Pygmy Owl *Glaucidium passerinum*	yes	no		no	no				
Little Owl *Athene noctua*	yes	2000–2010	LPO	no	yes				
Tawny Owl *Strix aluco*	no	no		no	no				
Long-eared *Owl Asio otus*	no	no		no	no				
Short-eared *Owl Asio flammeus*	no	no		no	no				
Tengmalm's *Owl Aegolius funereus*	yes	no		no	no				