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The status of the European Roller in Poland

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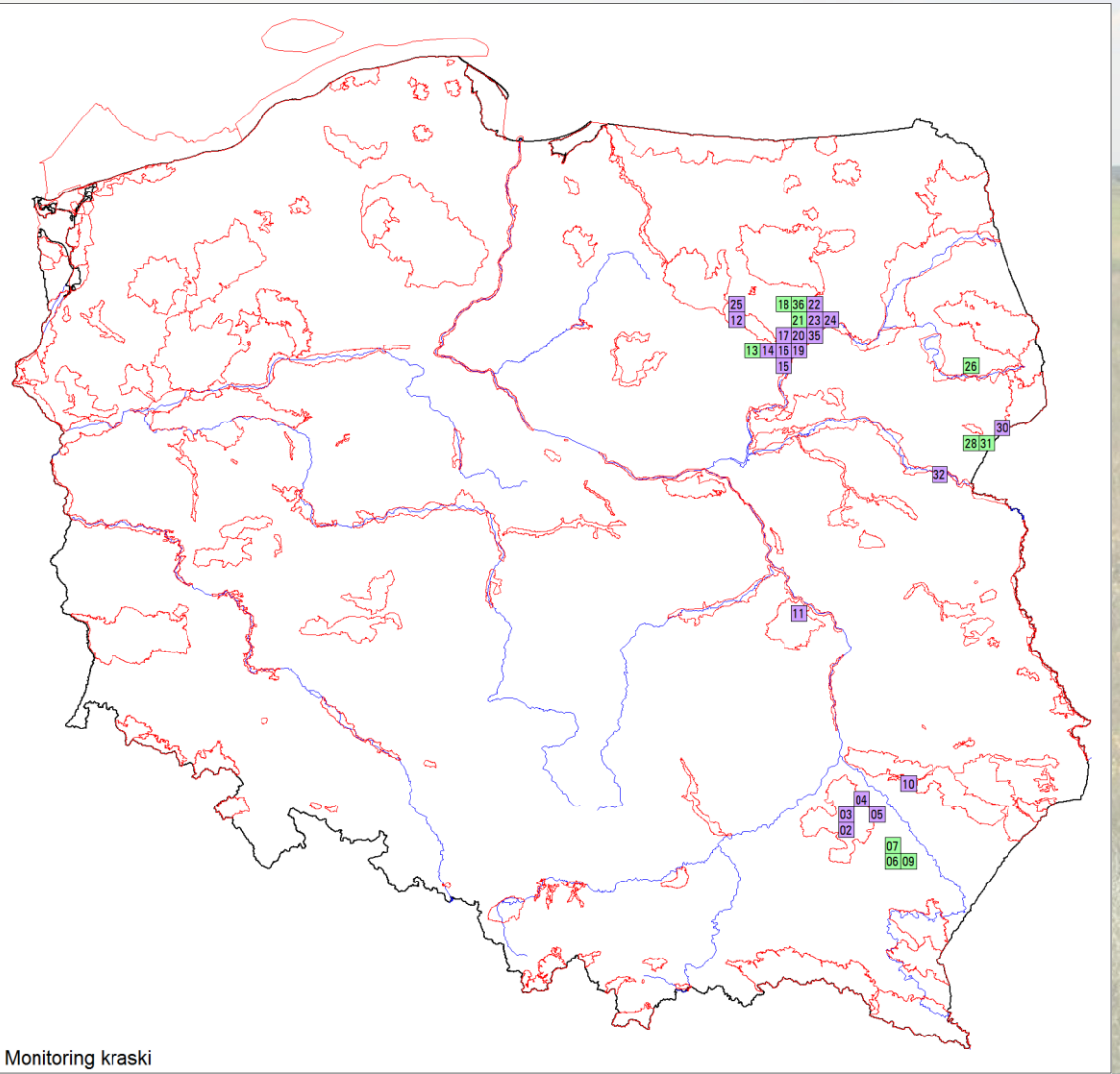
Do you (still) have breeding rollers in your country?



Distribution of breeding sites of European Roller in Poland in 2016

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Range states	Breeding	Migration	Wintering
Albania	yes	No	no
Armenia	yes	No	no
Austria	**yes**	**Yes**	**no**
Azerbaijan	yes	No	no
Belarus	yes	No	no
Bosnia and Herzegovina	yes	No	no
Bulgaria	**yes**	**Yes**	**no**
Croatia	yes	No	no
Cyprus	**yes**	**Yes**	**no**
Czech Republic	**extinct**	**No**	**no**
Estonia	**extinct**	**No**	**no**
France	**yes**	**Yes**	**no**
Georgia	yes	No	no
Greece	**yes**	**Yes**	**no**
Hungary	**yes**	**Yes**	**no**
Italy	**yes**	**No**	**no**
Latvia	**yes**	**Yes**	**no**
Lithuania	**yes**	**No**	**no**
Macedonia, the former Yugoslav Republic of	yes	No	no
Montenegro	yes	No	no
Moldova	yes	Yes	no
Poland	**yes**	**Yes**	**no**
Portugal	**yes**	**Yes**	**no**
Romania	**yes**	**Yes**	**no**
Russia (European)	yes	No	no
Serbia	yes	Yes	no
Slovakia	**yes**	**Yes**	**no**
Slovenia	**extinct**	**No**	**no**
Spain	**yes**	**Yes**	**no**
Turkey	yes	Yes	no
Ukraine	yes	Yes	no

Table 1. European range states of the European Roller. Member states of the EU in bold (BirdLife International 2008).

2016 monitoring:

- 103 sites controlled
- 35 sites with birds recorded
- 16 breeding confirmed
- 4 breeding probable
- 15 breeding possible

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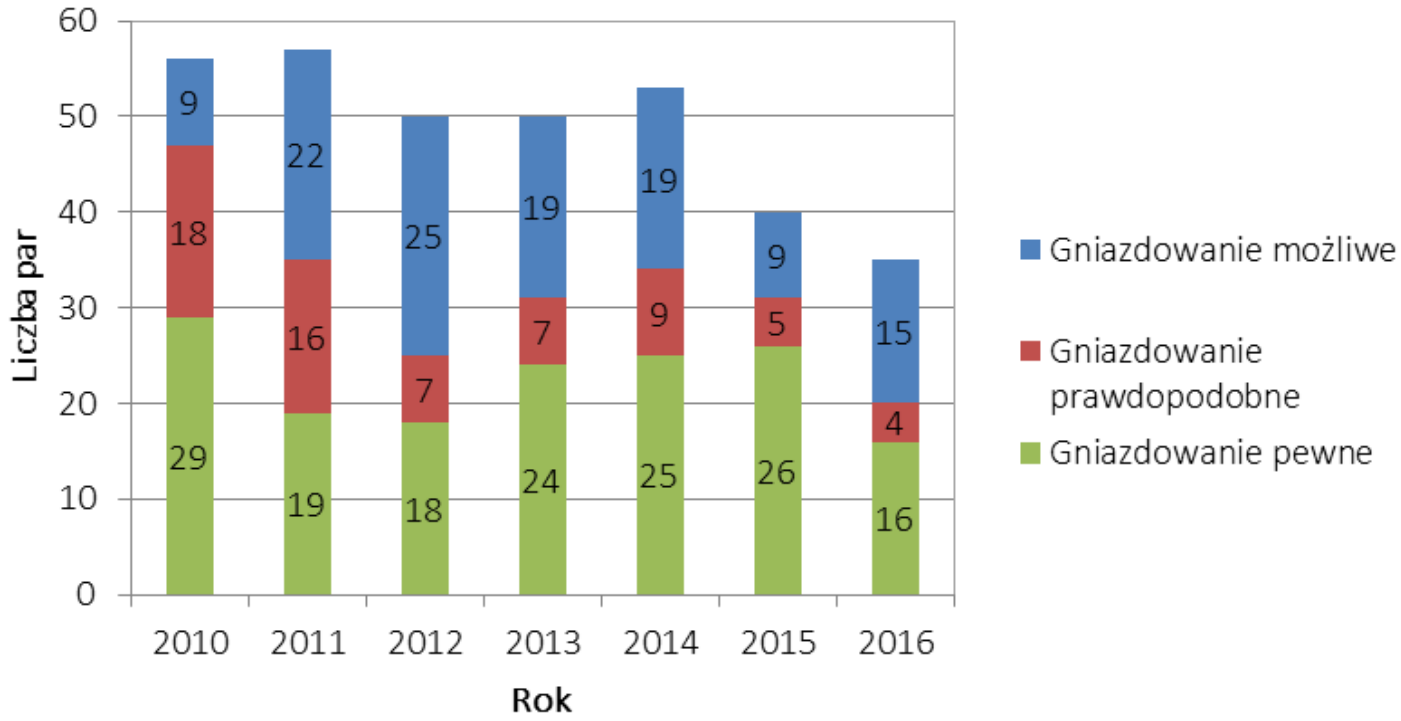
2016 monitoring:



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Country	Breeding pairs.	Quality	Year(s) of the latest estimate	Breeding Population trend in the last 15 years (= 3 generations)	Quality
Albania	10-50	M	2002	decline	P
Armenia	300-650	M	2000-2002	stable	M
Austria	10-18	G	2001-2008	stable	G
Azerbaijan	1000-5000	P	1996-2000	stable	P
Belarus	20-50	M	2008	large decline	M
Bulgaria	2.5-5.5	M	1990-2005	small increase	M
Croatia	0-5	M	2002	large decline	P
Cyprus	2000-4000	P	1994-2000	small increase	P
Czech Republic	0	G	2000	extinct	
Estonia	1-5	G	2003-2007	moderate decline	M
France	800-1000	M	2007	moderate increase	M
Georgia	present				
Greece	200-300	P	1995-2000	small decline	P
Hungary	1000	G	2007	stable	G
Italy	300-400	P	2003	stable	P
Latvia	20-30	G	2005	large decline	M
Lithuania	35-50	G	2007	large decline	G
Macedonia, the Former Republic of Yugoslav	300-1000	P		moderate decline	P
Moldova	50-80	M		large decline	P
Poland	60-80	G	2007	moderate decline	M
Portugal	80-150	M	2001-2005	moderate decline	P
Romania	4600-6500	P	2002	small decline	P
Russia (European)	6000-6500	P	1990-2000	moderate decline	M
Serbia	70-120	M	2007-2008	small increase	M
Slovakia	1-20	P	2008	large decline	P
Slovenia	0	M	2008	possibly extinct	M
Spain	2000-6000	M	2006	moderate decline	P
Turkey	30 000-60 000	P	2001	moderate decline	P
Ukraine	4000-5000	M	1990-2000	large decline	G
Total EU (27)	13,000 – 25,000			decline	

Population size and trend between 2000-2016 in Poland

2016:

- 16-20 breeding pairs
- Moderate decline
- Population index – (mean annual population growth rate 2009-2015) **λ= 0,946**
- Quality of data - G

Population size and trend by country (BirdLife International 2008).
Notes: G – Good; M – Medium; P – Poor.

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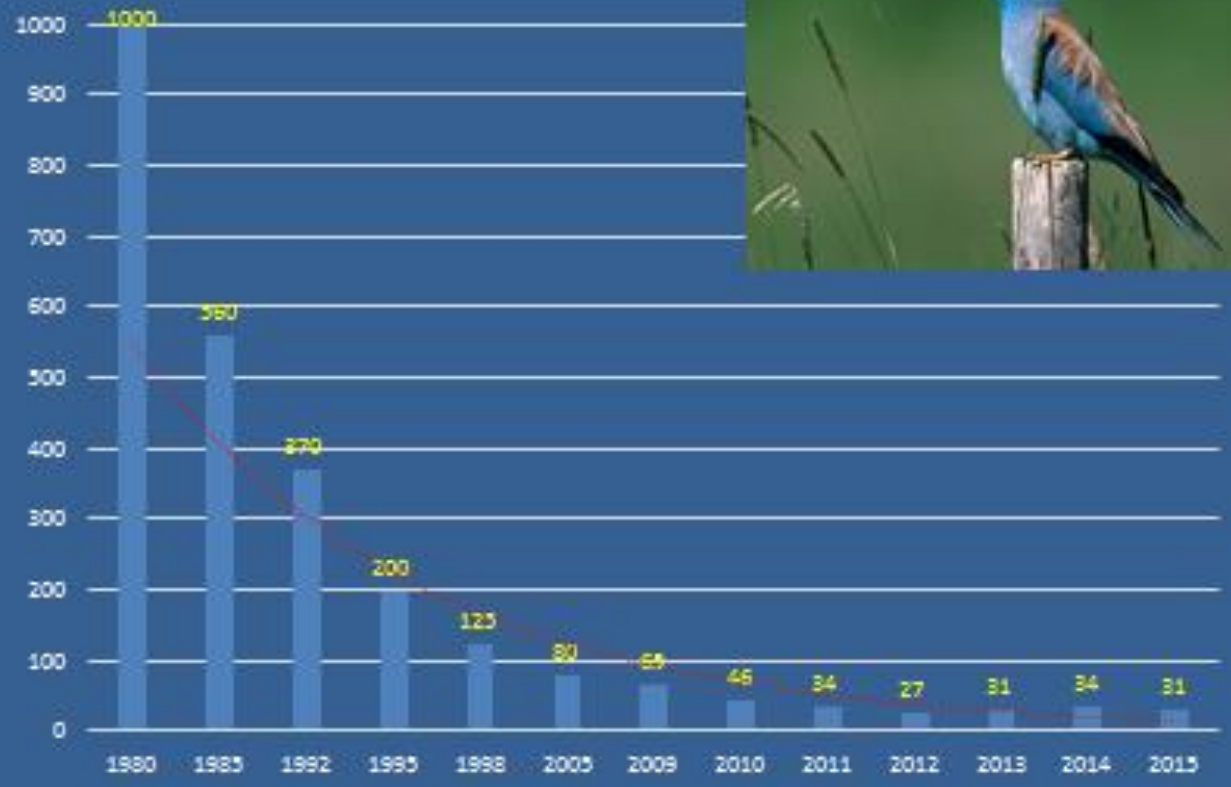
Long term trend (1980-2015)



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Main threats for rollers in Poland

No critical threats identified

Main high risk factor – intesification of agriculture:

- *conversion of grassland to arable land*
- *a massive increase in maize acreage*
- *abandonment of pastoral practices*
- *removal of dead and dying trees from the cultural landscape*

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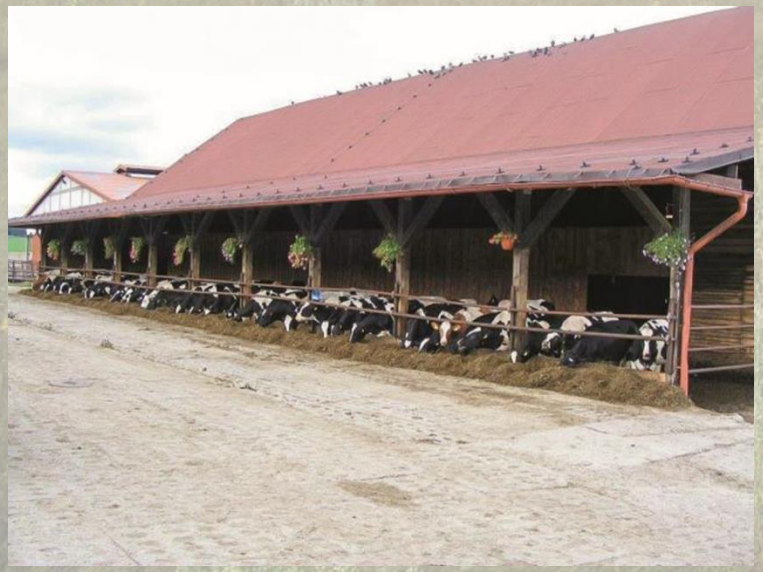
Main threats for rollers in Poland – drivers:



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Main threats for rollers in Poland

Medium risk factors:

- *Loss of nature friendly, low intesity , extensive farming*
- *Reforestation of open marginal land,*
- *Increased use of biocides, hormons and chemicals in agriculture*
- *Using of manure as a feritiliser ,*
- *Unfouvarable climatic changes in breeding season*

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Main threats for rollers in Poland – drivers:

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Threats that have been solved since the last ISAP (2008).

Problem of shortage of breeding sites where addressed and solved by mass introduction of nestboxes

(300 in total within all Roller breeding areas in PL)

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Long term threats that have no solution yet

Besides of providing of surplus of nest sites all other long term threats are not solved yet!

Threats that started fairly recently?

Rapid increase of grassland area intesively fertilised with manure

Changes regarding the policies and legislations relevant to the management of the species? Percentage of the breeding territories are protected?

- New nature protection regulations since 2008 has not effect on changes of Roller management
- Despite of introduction of zonal protection of nest sites no one of current site is protected in this way (private ovnership of land parcels, woods etc.)

Main goal in Poland regarding the roller population

To stop population decrease on the current level (ca 30 bp.) and in long term to increase of population size!

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Recent conservation activities and research in Poland

<u>Conservation activities:</u>

- 2012 – 2014: OTOP EU I&E Project:”Active conservation of Roller in Kurpie Plain”- covering the largest breeding population in PL.
- New application for 2017-19 submitted.

- National Roller Action Plan developed (2015)

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Recent conservation activities and research in Poland

- Spatial planning recomendations for road, urban and rural developments on the Roller breeding areas in Kurpie Plain (2015)

- Roller included into State Monitoring of Birds – in frame of State Monitoring of Environment since 2010 (http://monitoringptakow.gios.gov.pl/kraska)

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Recent conservation activities and research in Poland

<u>Research (Olsztyn University):</u>

- Nest site/nestbox selection
- Changes of habitat selection in 1990-96 vs. 2012-16
- Effect of supplementary feeding on breeding sucess
- Post fledging breeding ecology of families
- Genetical diversity of population of Kurpie Plain
- Mycological biota of chicks, nestholes and nestboxes

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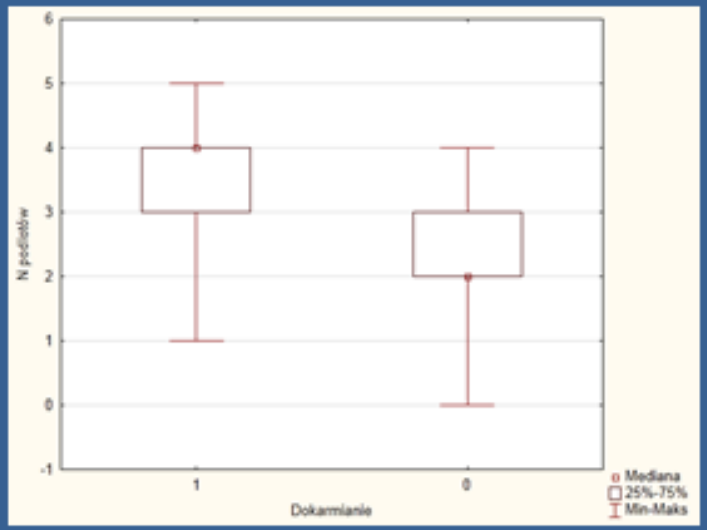
Scientific findings that could affect the conservation of the species.

- Breeding success of the pairs supplied with crickets during chick feeding is significantly higher than in control (pairs not supported)

Number of fledgings in nests with supplementary feeding and control one



	n	mean
With supplementary feeding	18	3,50
No supplementary feeding	25	2,08

Mann's-Whitney: Z=3,56, p=0,0004

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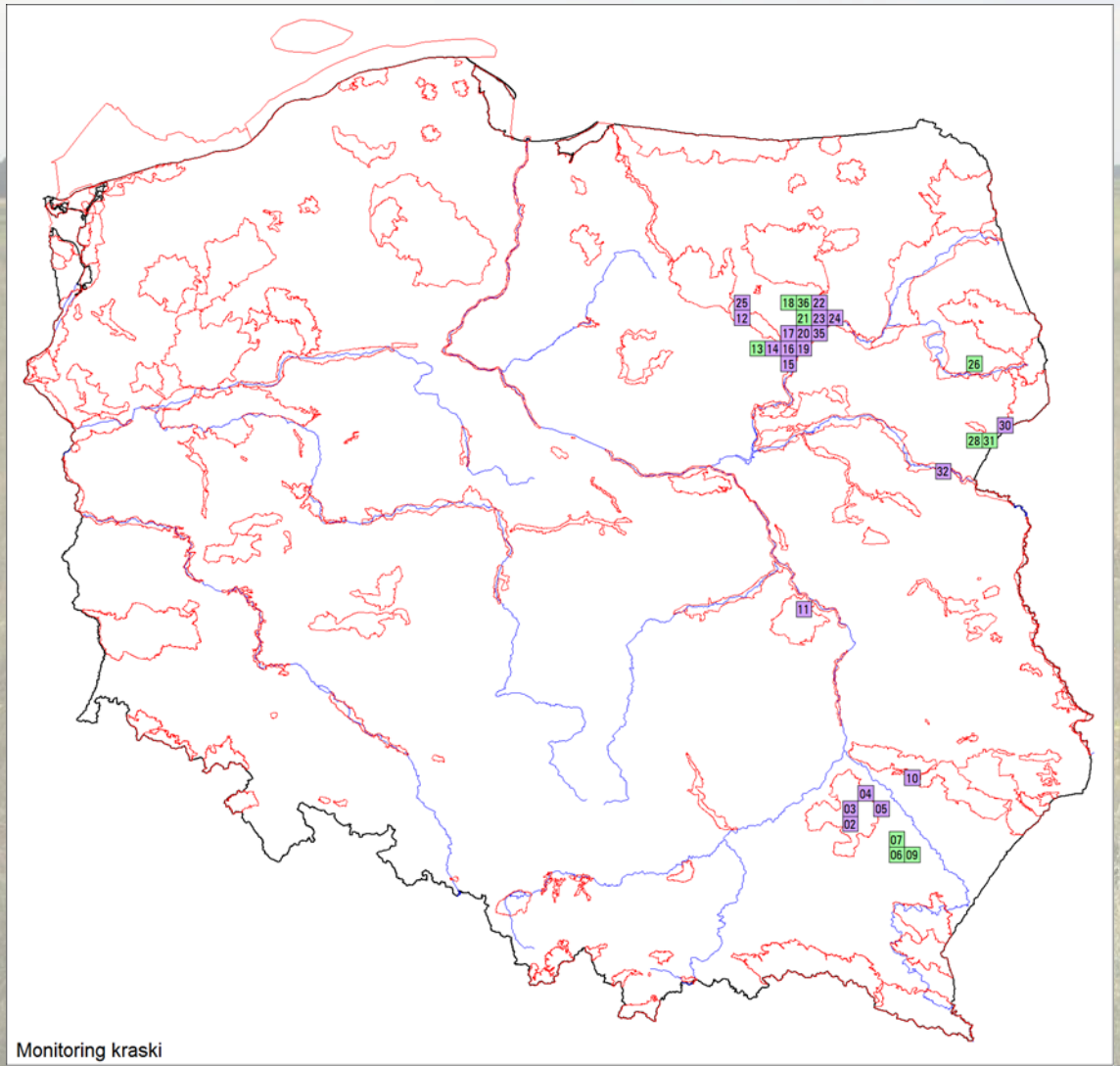
Polish monitoring methods



All known breeding sites are inspected (103 sites)

- NE Poland (Masovia and Mazury) – 69 sites
- CE Poland (Podlasie) – 8 sites
- SE Poland (Sandomierz Valley)– 26 sites
- Two controls: 15th-31st May & 25th June -15th July

Goals and actions from the last ISAP (2008) that are now considered complete in Poland

- 1.1.1 Develop national species action plans.
- 1.1.4 Increase the effectiveness of Environmental Impact Assessments for projects affecting Roller habitats
- 1.2.1. Develop monitoring schemes and implement annual monitoring on Roller populations and breeding success
- 1.2.3. Define priority areas for Roller conservation
- 1.3.2 Ensure that state, regional and local nature conservation agencies are aware of Roller priority areas,

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New objectives that should be incorporated in the new ISAP.

- Roller reintroduction programme based on birds from local population

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Thank you!

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