

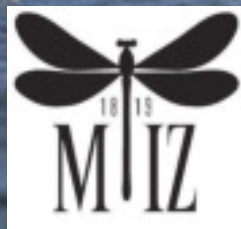
# Waterbirds of Western Pomerania, Poland

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Coalition Clean Baltic Annual Conference 22 April, 2018,  
Zelenogradsk, Russia



# West Pomeranian Nature Society

## [Zachodniopomorskie Towarzystwo Przyrodnicze]

The society was founded in 1994 as West Pomeranian Ornithological Society by people interested in protecting birds and their habitats gathered around Ornithological Station „Świdwie” PAN...

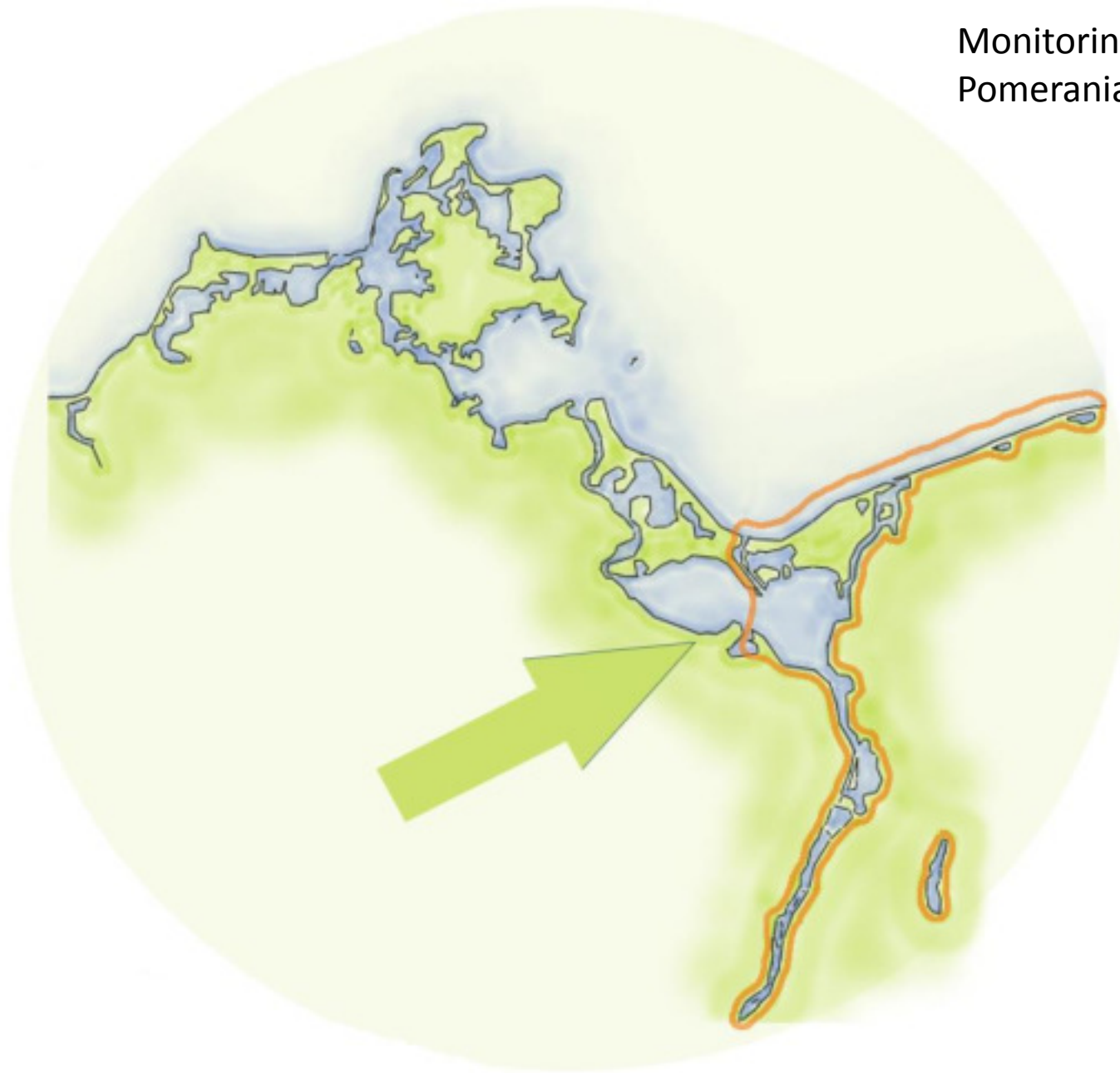
Two groups: MAMAL GROUP, BIRD GROUP  
2006 change the name ZTP because of MAMAL GROUP

MAMAL GROUP conservation and study of European Bison from West Pomeranian population, Wolves and Lynx

BIRD GROUP conservation and study of West Pomeranian birds, projects examples:

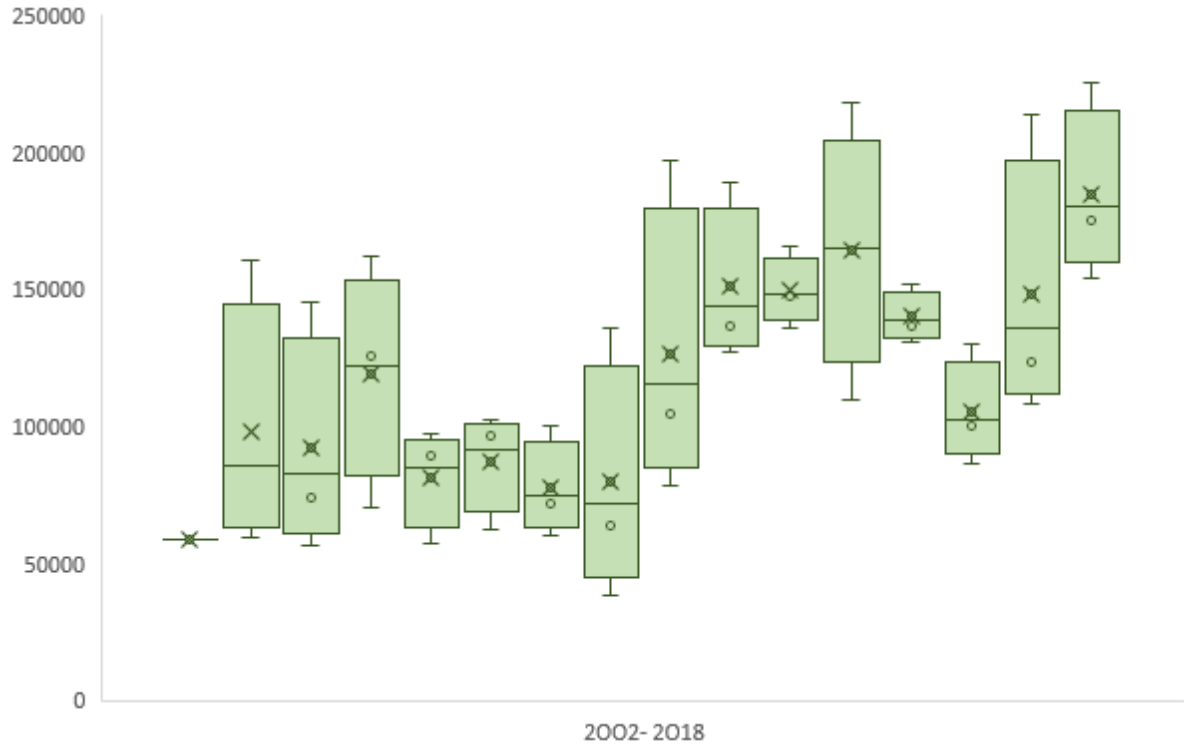
- \* Conservation of Common Goldeneye,
- \* Conservation of Barn Owl,
- \* Conservation of Sand Mines Birds,
- \* Active Protection and Monitoring of Krepa Marshes,
- \* Active Protection of Black Tern in Lower Odra Valley,
- \* Monitoring of Wintering and Migrating Waterbirds in Western Pomerania

## Monitoring of Wintering and Migrating Waterbirds in Western Pomerania



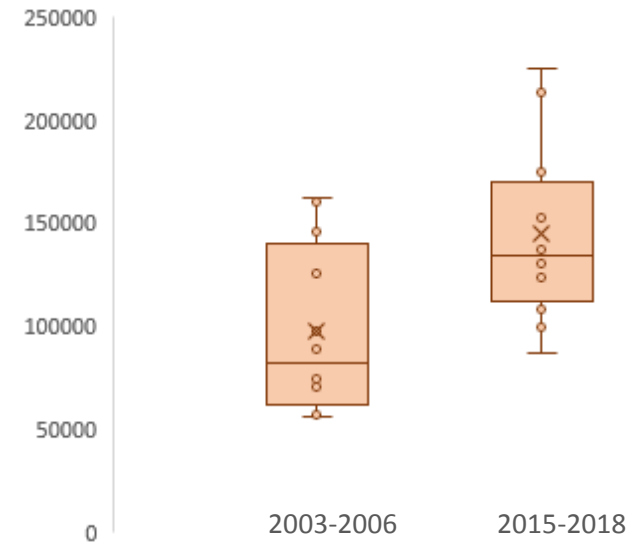
- Baltic Sea - the most important site for wintering waterbirds in WP
- 2001/2002 – 2017/2018 regular monitoring of the area
- Three counts during the wintering season (Nov, Jan, Mar)
- Data are sent to Wetland International <http://wpe.wetlands.org/search> and Helcom

# General information about waterbirds wintering in Western Pomerania



Numbers of all waterbirds counted in Western Pomerania in seasons: 2001/2002 – 2017/2018.  
 Mean, median, minimum and maximum values of counts during the season (November – January – March).

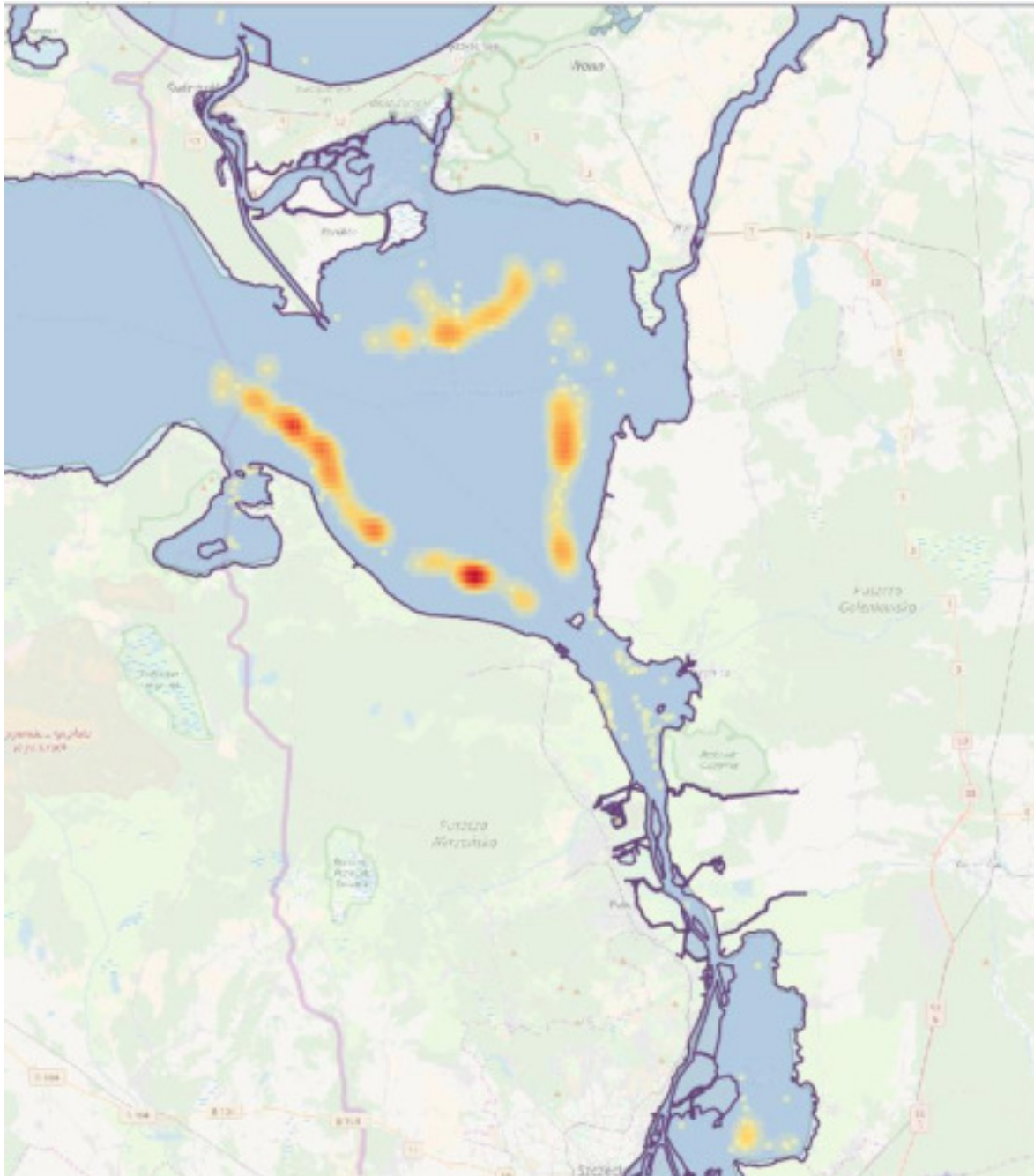
Mean of all waterbirds: 116 000 (range: 38 000 – 225 000)  
 2002-2018  
 Mean 2003-2006 = 97 000 (56 000 – 162 000)  
 Mean 2015-2018 = 145 000 (86 000 – 225 000)



Mean, median, min. and max. values... from four seasons in the beginning of the study and four recent seasons.

Species group	species	Index values								
		2013	2014	2015	2016	2017	2018	Mean 2013-2018	Trend in the Study area	Trend in the whole Baltic or population
All <sup>(2002-2006)</sup>		<b>1.533</b>	<b>1.683</b>	<b>1.436</b>	<b>1.081</b>	<b>1.520</b>	<b>1.896</b>	<b>1.525</b>	↑↑	→
Surface feeders all <sup>(1985-1990)</sup>		<b>0.645</b>	<b>0.867</b>	<b>0.715</b>	<b>0.519</b>	<b>0.566</b>	<b>0.601</b>	<b>0.652</b>	↓	?
Surface feeders	Black-headed Gull	0.480	0.625	0.591	0.373	0.608	0.442	0.520	↓↓	→?
	Common Gull	0.658	0.834	0.974	0.451	0.627	0.851	0.732	↓	→?
	Herring Gull	1.151	1.599	0.760	1.026	0.403	0.743	0.947	→	↓
	Great Black-backed	0.156	0.934	0.508	0.503	0.222	0.533	0.476	↓↓	↓
Pelagic feeders all <sup>(1992-1994)</sup>		<b>0.445</b>	<b>0.381</b>	<b>0.427</b>	<b>0.442</b>	<b>0.364</b>	<b>0.467</b>	<b>0.421</b>	↓↓	↑
Pelagic feeders all <sup>(2002-2006)</sup>		<b>1.060</b>	<b>0.906</b>	<b>1.016</b>	<b>1.052</b>	<b>0.867</b>	<b>1.112</b>	<b>1.002</b>	→	↑
Pelagic feeders	Smew	0.211	0.203	0.179	0.071	0.108	0.167	0.156	↓↓	↑
	Goosander	0.355	0.188	0.166	0.281	0.194	0.206	0.234	↓↓	↓
	Great-crested Grebe	2.134	4.722	3.426	3.081	2.225	4.084	3.279	↑↑	↑
	Great Cormorant	9.695	13.11	20.94	16.34	15.66	21.28	16.171	↑↑	↑
Benthic feeders all <sup>(1992-1994)</sup>		<b>1.012</b>	<b>1.395</b>	<b>1.102</b>	<b>0.820</b>	<b>1.372</b>	<b>1.394</b>	<b>1.183</b>	↑	↓
Benthic feeders all <sup>(2002-2006)</sup>		<b>2.129</b>	<b>2.936</b>	<b>2.319</b>	<b>1.725</b>	<b>2.886</b>	<b>2.933</b>	<b>2.488</b>	↑↑	↓
Benthic feeders	Common Pochard	0.242	0.155	0.153	0.059	0.113	0.212	0.156	↓↓	↓
	Tufted Duck	0.901	1.228	1.170	0.962	1.482	1.492	1.206	↑	↓
	Greater Scaup	1.403	2.378	1.247	0,988	1.941	1.767	1.621	↑↑	↓
	Common Goldeneye	0.775	0.734	1.005	0.436	0.505	0.767	0.704	↓	↑
	Eurasian Coot	1.399	1.256	1.507	0.884	1.382	1.718	1.358	↑	↓
Grazing feeders <sup>(2002-2005)</sup>		<b>0.369</b>	<b>0.361</b>	<b>0.314</b>	<b>0.140</b>	<b>0.200</b>	<b>0.516</b>	<b>0.317</b>	↓↓	→
Grazing feeders	Mute Swan	1.409	1.143	1.256	1.396	1.078	1.522	1.301	↑	↑/→
	Whooper Swan	1.700	0.899	0.630	0.687	0.995	0.973	0.981	→	↑/→
	Bewick's Swan	0.604	0.396	0.434	0.245	0.491	0.585	0.459	↓↓	↓
	Been Goose	0.814	0.851	0.743	0.257	0,420	1.241	0.720	↓	↑
	White-fronted Goose	0.405	0.142	0.260	0.106	0.250	0.475	0.273	↓↓	→
	Graylag Goose	3.042	3.147	2.580	1.837	3.486	6.325	3.403	↑↑	↑
	Barnacle Goose	9.000	15.00	6.000	17.33	15.67	28.22	15.22	↑↑	↑
	Mallard	0.931	0.828	0.820	0.659	0.850	1.159	0.874	→	→





## Spatial distribution and density

Greater Scaup *Aythya marila* spatial distribution and density  
During two seasons 2016-2017 nad 2017-2018

Spatial modeling (Kernel density estimate) using three  
variables:  
longitude, latitude and numbers.  
Quadratic interpolation with fixed interval of bandwidth  
in CrimeStat IV software (Levine 2010).



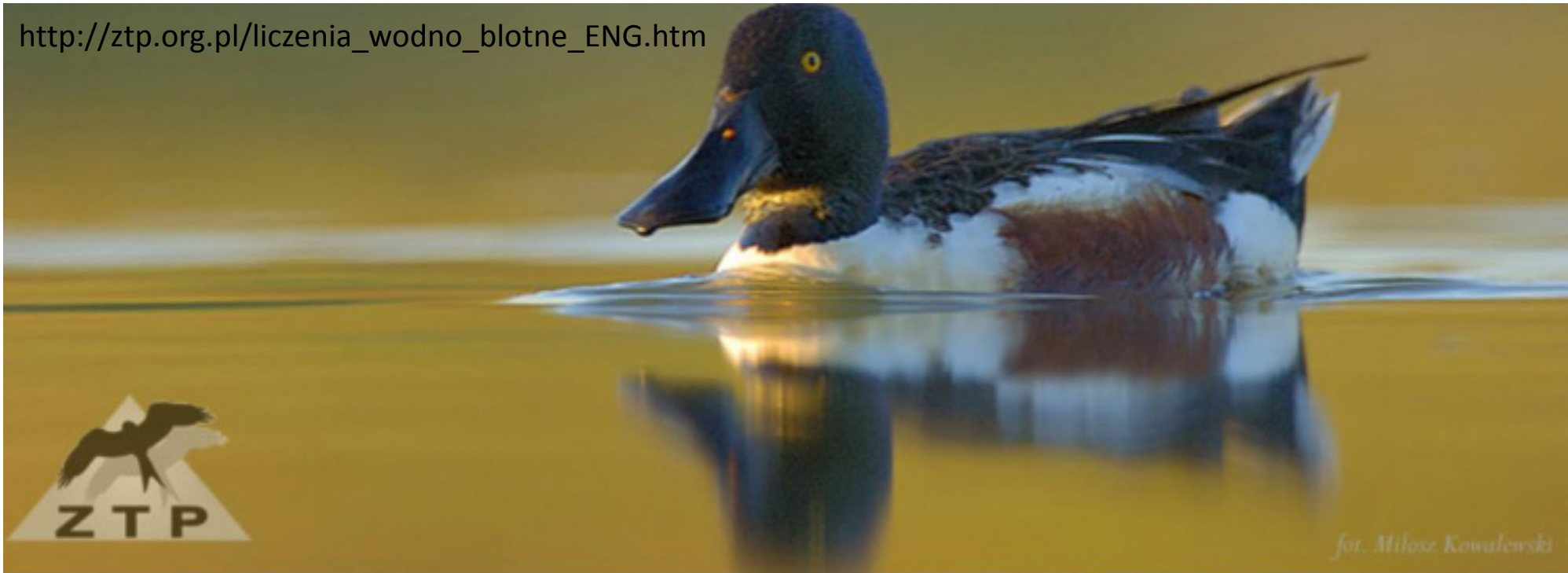
Fot. Dawid Kilon

## Nearest future plans

1. Continuation of monitoring in the coming seasons
2. Widening the monitoring so as to cover a larger area and longer time.
3. Publication of results and analysis in the form of a book.
4. Educational campaign in schools and in the field.



Fot. Miłosz Kowalewski



*fol. Miłosz Kowalewski*

STRONA GŁÓWNA

STATUT

ZARZĄD

SPRAWOZDANIA

KONTAKT

ŻUBRY ZACHODNIOPOMORSKIE

nas  
artoteka ptaków  
oservacje  
głoszenia  
nki

rtoka Pomorska

czenie ptaków  
odnych

Pomorzu Zachodnim

## WEST-POMERANIAN NATURE SOCIETY

### ORNITHOLOGICAL GROUP

### Western Pomeranian Waterbird Census, Poland





THANK YOU!



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