

Report on the main results of the surveillance under Article 11 for Annex II, IV and V species (Annex B)

NATIONAL LEVEL

1. General information

1.1 Member State	HU
1.2 Species code	4062
1.3 Species scientific name	Paladilhia hungarica
1.4 Alternative species scientific name	Bythiospeum hungaricum, Paladilhiopsis hungarica
1.5 Common name (in national language)	magyar vakcsiga

2. Maps

2.1 Sensitive species	No
2.2 Year or period	2013-2018
2.3 Distribution map	Yes
2.4 Distribution map Method used	Complete survey or a statistically robust estimate
2.5 Additional maps	No

3. Information related to Annex V Species (Art. 14)

3.1 Is the species taken in the wild/exploited?	No	
3.2 Which of the measures in Art. 14 have been taken?	a) regulations regarding access to property	No
	b) temporary or local prohibition of the taking of specimens in the wild and exploitation	No
	c) regulation of the periods and/or methods of taking specimens	No
	d) application of hunting and fishing rules which take account of the conservation of such populations	No
	e) establishment of a system of licences for taking specimens or of quotas	No
	f) regulation of the purchase, sale, offering for sale, keeping for sale or transport for sale of specimens	No
	g) breeding in captivity of animal species as well as artificial propagation of plant species	No
	h) other measures	No

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3.3 Hunting bag or quantity taken in the wild for Mammals and Acipenseridae (Fish)

a) Unit

b) Statistics/ quantity taken	Provide statistics/quantity per hunting season or per year (where season is not used) over the reporting period					
	Season/ year 1	Season/ year 2	Season/ year 3	Season/ year 4	Season/ year 5	Season/ year 6
Min. (raw, ie. not rounded)						
Max. (raw, ie. not rounded)						
Unknown	No	No	No	No	No	No

3.4. Hunting bag or quantity taken in the wild Method used

3.5. Additional information

BIOGEOGRAPHICAL LEVEL

4. Biogeographical and marine regions

4.1 Biogeographical or marine region where the species occurs

Pannonian (PAN)

4.2 Sources of information

Angyal D. (2012): Újabb adatok a magyar vakcsiga (*Bythiospeum hungaricum* (Soós, 1927); Gastropoda, Hydrobiidae) elterjedéséről az élőhelyében bekövetkezett változások tükrében. *Állattani Közlemények* 97 (2): 163-170

Angyal D. (2011): Konzervációbiológiai és molekuláris taxonómiai vizsgálatok a magyar vakcsiga (*Bythiospeum hungaricum* (Soós, 1927)) populációján a Mecsek hegység két barlangjában

http://www.termeszetvedelem.hu/_user/browser/File/barlangkutat%C3%A1si%20jelent%C3%A9sek/2011/angyal_dorottya_2011.pdf

http://www.shp.hu/hpc/userfiles/fauna-mecsek/angyal_et_al_2013_vakcsiga_mecsek.pdf

Angyal D, Balázs G, Krízsis V, Herczeg G, Fehér Z. Molecular and morphological divergence in a stygobiont gastropod lineage (*Truncatelloidea*, *Moitessieriidae*, *Paladilhopsia*) within an isolated karstic area in the Mecsek Mountains (Hungary). *J Zool Syst Evol Res.* 2018; 00:1–12. <https://doi.org/10.1111/jzs.12220>

5. Range

5.1 Surface area

200

5.2 Short-term trend Period

2007-2018

5.3 Short-term trend Direction

Stable (0)

5.4 Short-term trend Magnitude

a) Minimum

b) Maximum

5.5 Short-term trend Method used

Complete survey or a statistically robust estimate

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5.6 Long-term trend Period

5.7 Long-term trend Direction

5.8 Long-term trend Magnitude

a) Minimum

b) Maximum

5.9 Long-term trend Method used

5.10 Favourable reference range

a) Area (km²)

b) Operator

Approximately equal to (≈)

c) Unknown

d) Method

5.11 Change and reason for change in surface area of range

Improved knowledge/more accurate data

The change is mainly due to: Improved knowledge/more accurate data

5.12 Additional information

6. Population

6.1 Year or period

2007-2018

6.2 Population size (in reporting unit)

a) Unit

number of map 1x1 km grid cells (grids1x1)

b) Minimum

c) Maximum

d) Best single value 2

6.3 Type of estimate

Minimum

6.4 Additional population size (using population unit other than reporting unit)

a) Unit

b) Minimum

c) Maximum

d) Best single value

6.5 Type of estimate

6.6 Population size Method used

Based mainly on extrapolation from a limited amount of data

6.7 Short-term trend Period

2007-2018

6.8 Short-term trend Direction

Uncertain (u)

6.9 Short-term trend Magnitude

a) Minimum

b) Maximum

c) Confidence interval

6.10 Short-term trend Method used

Based mainly on expert opinion with very limited data

6.11 Long-term trend Period

6.12 Long-term trend Direction

6.13 Long-term trend Magnitude

a) Minimum

b) Maximum

c) Confidence interval

6.14 Long-term trend Method used

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6.15 Favourable reference population (using the unit in 6.2 or 6.4)

- a) Population size
- b) Operator
- c) Unknown x
- d) Method

6.16 Change and reason for change in population size

Use of different method
The change is mainly due to: Use of different method

6.17 Additional information

7. Habitat for the species

7.1 Sufficiency of area and quality of occupied habitat

- a) Are area and quality of occupied habitat sufficient (for long-term survival)? Yes
- b) Is there a sufficiently large area of unoccupied habitat of suitable quality (for long-term survival)?

7.2 Sufficiency of area and quality of occupied habitat Method used

Based mainly on extrapolation from a limited amount of data

7.3 Short-term trend Period

2007-2018

7.4 Short-term trend Direction

Stable (0)

7.5 Short-term trend Method used

Based mainly on extrapolation from a limited amount of data

7.6 Long-term trend Period

7.7 Long-term trend Direction

7.8 Long-term trend Method used

7.9 Additional information

The habitats of the species are currently stable, but it is not known how much the Mánfai-kőlyuk Cave corresponds to the needs of the species and how long it can ensure long-term survival.

8. Main pressures and threats

8.1 Characterisation of pressures/threats

Pressure	Ranking
Modification of hydrological flow (K04)	H
Abstraction of ground and surface waters (including marine) for public water supply and recreational use (F33)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M
Threat	Ranking
Modification of hydrological flow (K04)	H
Abstraction of ground and surface waters (including marine) for public water supply and recreational use (F33)	M
Mixed source pollution to surface and ground waters (limnic and terrestrial) (J01)	M

8.2 Sources of information

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8.3 Additional information

9. Conservation measures

9.1 Status of measures

- a) Are measures needed? Yes
- b) Indicate the status of measures Measures needed but cannot be identified

9.2 Main purpose of the measures taken

9.3 Location of the measures taken

9.4 Response to the measures

Long-term results (after 2030)

9.5 List of main conservation measures

9.6 Additional information

9.1: The correct answer: "Measures needed but none yet identified"

10. Future prospects

10.1 Future prospects of parameters

- a) Range Good
- b) Population Good
- c) Habitat of the species Good

10.2 Additional information

The conservation status of the population in the Abaliget Cave is favorable. The cave is protected and utilization has no significant effect on those cave parts where the species live.

In the case of the Mánfai-kőlyuk Cave, the human exploitation of the cave greatly changed the habitat of the species in 1969. This is probably drives to the smaller size population. Despite of human interventions, this population also seems stable.

There is a significant genetic difference between the populations of the two caves (Angyal et al 2018). Although further research is required to prove the specific or subspecific segregation of populations, experts recommend treating them as a separate conservation unit. In this report we evaluated the two populations as a same.

11. Conclusions

11.1. Range

Favourable (FV)

11.2. Population

Unfavourable - Inadequate (U1)

11.3. Habitat for the species

Favourable (FV)

11.4. Future prospects

Favourable (FV)

11.5 Overall assessment of Conservation Status

Unfavourable - Inadequate (U1)

11.6 Overall trend in Conservation Status

Stable (=)

11.7 Change and reasons for change in conservation status and conservation status trend

- a) Overall assessment of conservation status
- Improved knowledge/more accurate data
Use of different method

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The change is mainly due to: Improved knowledge/more accurate data

b) Overall trend in conservation status

No change

The change is mainly due to:

11.8 Additional information

12. Natura 2000 (pSCIs, SCIs and SACs) coverage for Annex II species

12.1 Population size inside the pSCIs, SCIs and SACs network (on the biogeographical/marine level including all sites where the species is present)

a) Unit number of map 1x1 km grid cells (grids1x1)
b) Minimum
c) Maximum
d) Best single value 1

12.2 Type of estimate

Best estimate

12.3 Population size inside the network Method used

Based mainly on extrapolation from a limited amount of data

12.4 Short-term trend of population size within the network Direction

Stable (0)

12.5 Short-term trend of population size within the network Method used

Based mainly on extrapolation from a limited amount of data

12.6 Additional information

13. Complementary information

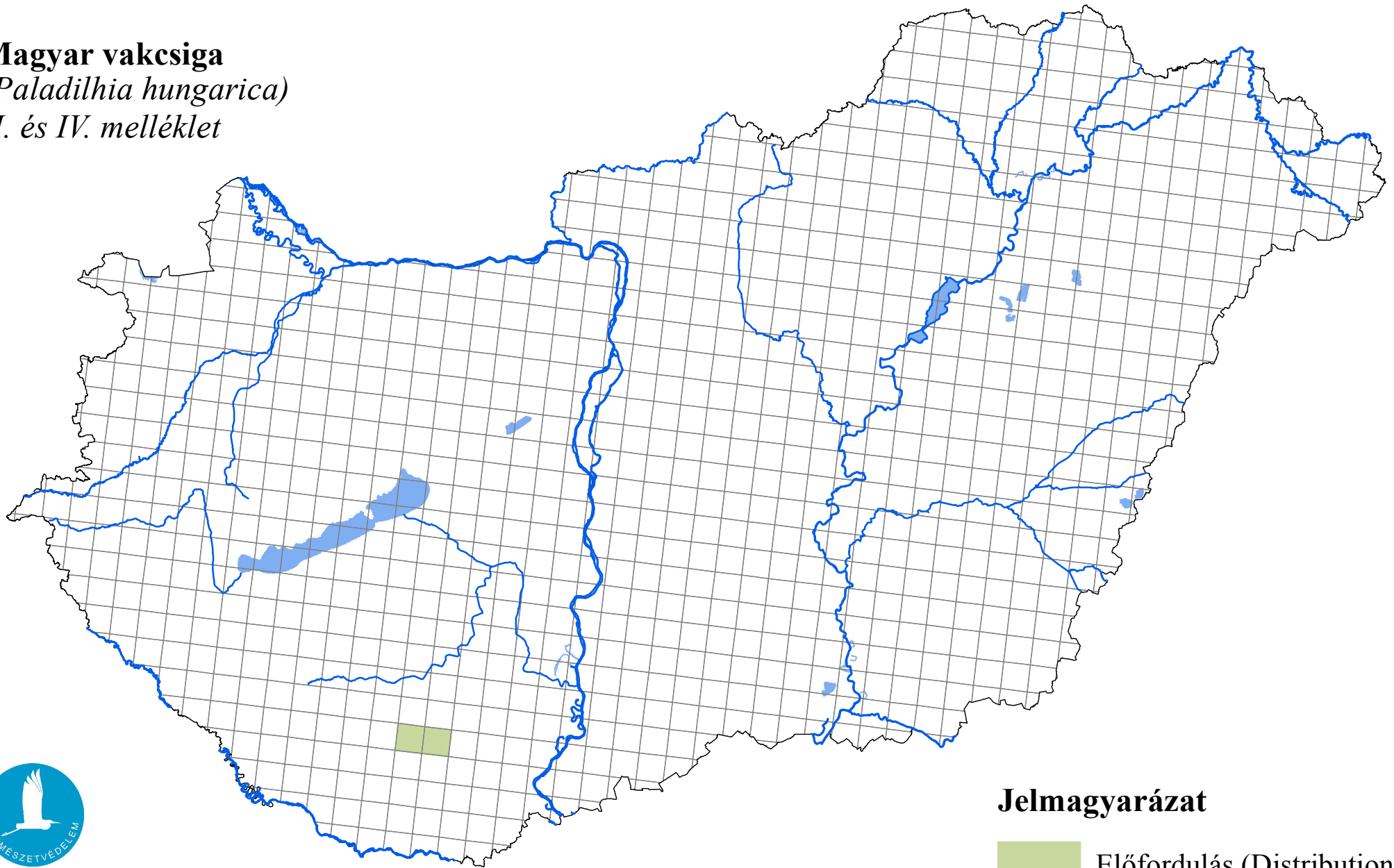
13.1 Justification of % thresholds for trends

13.2 Trans-boundary assessment

13.3 Other relevant Information

Az élőhelyvédelmi irányelv 17. cikke alapján készített országjelentés 2019

Magyar vakcsiga
(*Paludilhia hungarica*)
II. és IV. melléklet



Forrás: Agrárminisztérium,
Természetmegőrzési Főosztály