

Definition of favourable
conservation status for Annex IV
amphibian and reptile species in
Southern Lithuania.

Kåre Fog

Bufo variabilis			
Criteria	"favourable"	"good"	"unfavourable"
Population	Excellent	good	average - bad
Size	> 100 callers / egg strings	20-100 callers / egg strings	<20 callers / egg strings
Structure	reproductional success		no reproduction
Habitat	Excellent	good	average - bad
aquatic			
Number and size of waterbodies	>10 small waterbodies with total surface > 5.000 m ² or 1 big waterbody with total surface >10.000	>5 small waterbodies with total surface >2.500 m ² or 1 big waterbody with total surface >5.000m ²	<5 small waterbodies with total surface <2.500 m ² or 1 big waterbody with total surface <5.000m ²
% of shallow areas (<50cm depth)	>80%	40%-80%	<40%
sun exposition in %	100 %	90-100 %	<90%
% cover emergent vegetation	0 - 5 %	5%-20%	>20%
% cover submerge vegetation	0-10 %	10-90 %	> 90%
Drying out of pond	Semi-permanent, dries out in late summer in some years	1) permanent 2) Dries out before mid July in some years	1) permanent 2) Dries out before mid July in most years
terrestrial			
presence of hiding places (crevices, holes, stone heaps etc.)	Many hiding places at buildings, between stones, in heaps of dung or rubbish, or by digging holes in south facing slopes	Few such hiding places	No obvious hiding places. Areas around buildings are tidy and clean.
Presence of area with bare / scattered vegetation / ruderal areas / traditional village structures within 1 km radius around pond	>50% cover of area within 200 m radius	Several places within 1 km radius	Few or no places within 1 km radius
connectivity			
distance to the next population	<1.500 m	1.500m to 3.000m	>3.000 m
Threats	None	average	strong
aquatic			
presence of fish	None	Few small fish (sticklebacks)	yes
Growing in	No swamp / reed vegetation, due to grazing or newness	Scattered or low swamp /reed vegetation	Extensive reed vegetation
terrestrial			
Growing in	Many patches without vegetation	Few bare patches, most of the area grown in with grass or herbs	Much of the area grown in with grass or herbs, the rest shaded by bushes and trees
Roads or car traffic within 50 m of terrestrial habitat	None	Roads with a little local traffic < 30 cars per night	> 30 cars per night
connectivity			
isolation due to landuse in the assumed direction of migration ¹⁾	0% to 10% blocked	10% to 50% blocked	>50% blocked

¹⁾ isolation caused by dense forest, city areas, large...

Epidalea calamita			
Criteria	"favourable"	"good"	"unfavourable"
Population	Excellent	good	average - bad
Size	> 100 callers / egg strings	20-100 callers / egg strings	<20 callers / egg strings
Structure	reproductional success		no reproduction
Habitat	Excellent	good	average - bad
aquatic			
Number and size of waterbodies	>10 small waterbodies with total surface > 5.000 m ² or 1 big waterbody with total surface >10.000	>5 small waterbodies with total surface >2.500 m ² or 1 big waterbody with total surface >5.000m ²	<5 small waterbodies with total surface <2.500 m ² or 1 big waterbody with total surface <5.000m ²
% of shallow areas (<25cm depth)	>80%	40%-80%	<40%
sun exposition in %	100 %	90-100 %	<90%
% cover emergent vegetation	0 - 20 %	20%-50%	>50%
Drying out of pond	Temporary, dries out in mid or late summer	1) semi-permanent, dries out in late summer in some years 2) Dries out before mid June in some years	1) permanent 2) Dries out before mid June in most years
terrestrial			
Presence of wood / forest within 1 km radius around breeding site	No wood or forest	No wood or forest within 300 m radius	No wood or forest within 30 m radius
Presence of area with bare / scattered vegetation / ruderal areas / short grass within 1 km radius around breeding site	>50% cover of area within 200 m radius	Several places within 1 km radius	Few or no places within 1 km radius
connectivity			
distance to the next population	<1.500 m	1.500m to 3.000m	>3.000 m
Threats	None	average	strong
aquatic			
presence of fish	None	Few small fish (sticklebacks)	yes
Growing in	No swamp /reed vegetation, but flooded grass	Scattered or low swamp /reed vegetation	Extensive / dense reed vegetation
terrestrial			
Growing in	Short grass vegetation with patches without vegetation	Not very short grassy vegetation with few bare patches	Much of the area grown in with grass or herbs, the rest shaded by bushes and trees
Roads or car traffic within 50 m of terrestrial habitat	None	Roads with a little local traffic < 30 cars per night	> 30 cars per night
connectivity			
Isolation due to landuse in the assumed direction of migration ²¹	0% to 10% blocked	10% to 50% blocked	>50% blocked

²¹ Isolation caused by dense forest, city areas, larger roads, dense shrubs etc.

Hyla orientalis			
Criteria	"favourable"	"good"	"unfavourable"
Population	excellent	Good	average - bad
Size	> 100 callers	20-100 callers	<20 callers
Breeding success: number of tadpoles caught in 30 minutes	> 20	1-20	0
Habitat	excellent	Good	average - bad
Aquatic			
Number and size of waterbodies	>10 waterbodies with total surface > 5.000 m²	>5 waterbodies with total surface >2.500 m²	<5 waterbodies with total surface <2.500 m²
% of shallow areas (<50cm depth)	>50%	25%-50%	<25%
sun exposition in %	>95%	80%-95%	<80%
% cover submerge vegetation	50-90%	90-100 % or 30-50%	<30%
Terrestrial			
% of shrubs, tall flowering vegetation or light forest within 500m around the waterbodies	>50%	20% to 50%	<20%
Connectivity			
distance to the next population	<1.000 m	1.000m to 2.000m	>2.000 m
Part of a metapopulation ?	Yes, clearly part of a metapopulation with a total of > 5000 calling males	Some contact to a larger metapopulation	Isolated
Threats	none	Average	strong
Aquatic			
presence of fish	none	None	yes
other (e.g. pollution, threat of filling in etc.)	on site expertise from herpetologist		
Terrestrial			
Anticipated changes in tree cover	Mixed structure of open land and tree/bush stands will remain	Trees are gradually growing up, shading gradually more	Large open areas will be planted with trees
other (e.g. roads, pollution etc.)	on site expertise from herpetologist		
connectivity			
Isolation due to landuse in the direction of migration ¹⁾	0% to 25% blocked	25% to 99% blocked	100% blocked

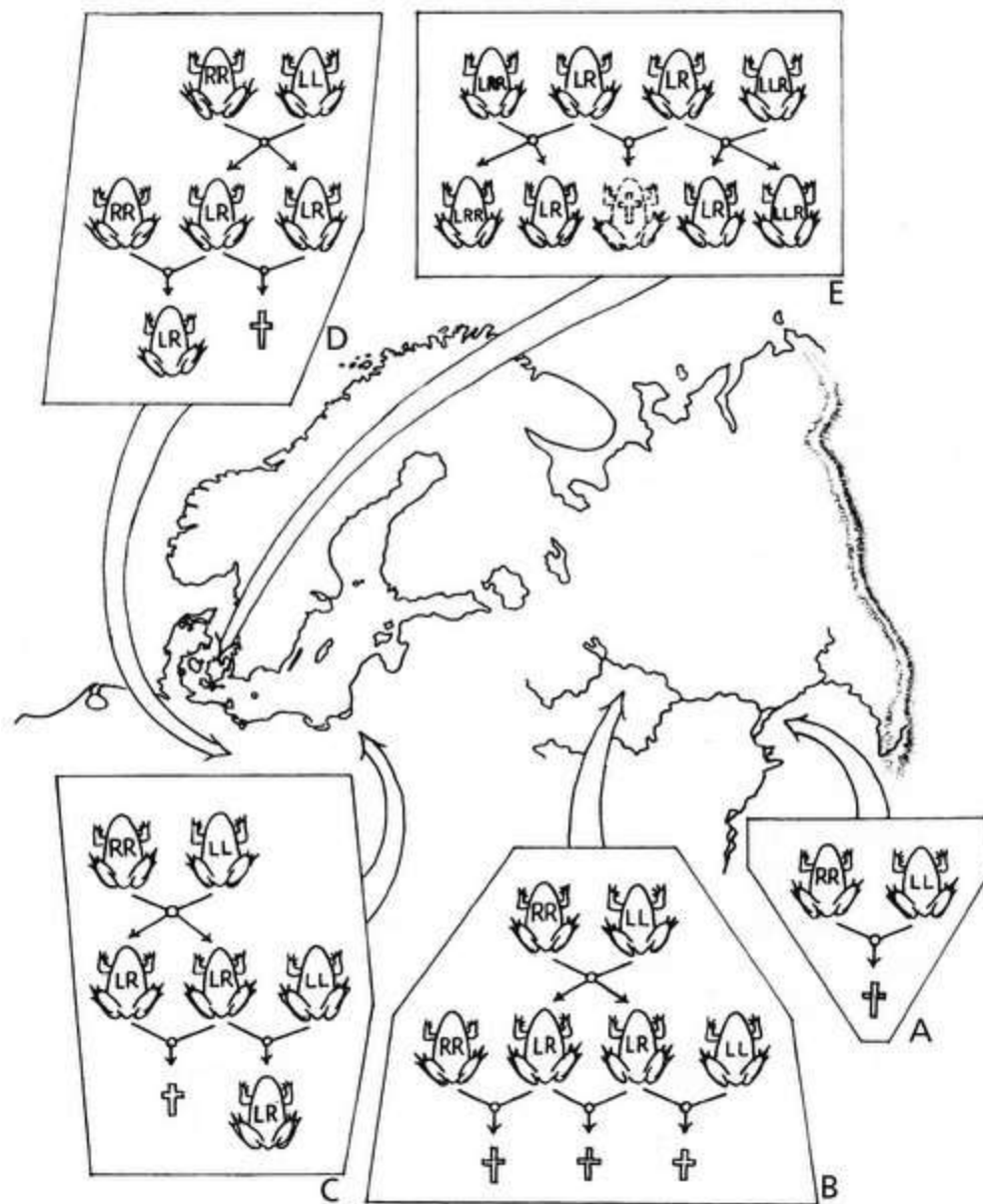
¹⁾ isolation caused by dense forest or city areas

Pelobates fuscus			
Criteria	"favourable"	"good"	"unfavourable"
Population	Excellent	good	average - bad
Size	No easy method of recording		
Structure	Tadpoles can be caught in the water		no reproduction
Habitat	Excellent	good	average - bad
aquatic			
Number and size of waterbodies	>10 waterbodies with total surface > 5.000 m ²	>5 waterbodies with total surface >2.500 m ²	<5 waterbodies with total surface <2.500 m ²
sun exposition in %	>95%	80%-95%	<80%
% cover submerge vegetation	50-90%	30-50% or 90%-95%	<30% or >95%
terrestrial			
Soil type	Easy to dig in, e.g. sandy loam, garden mull	Less easy to dig in, e.g. clayey loam, or top soil covered with dense network of grass roots	Difficult to dig in, e.g. dense clay or heavily grazed soil with a hard crust dried in the sun
connectivity			
distance to the next population	<300 m	300 m to 600 m	>600 m
Threats	None	average	strong
aquatic			
presence of fish	None	none	yes
Eutrophication	Good water quality	Plant and animals species requiring very good water quality are absent	Plant and animal species requiring fair water quality are absent
terrestrial			
Roads	< 10 cars per night	10 to 30 cars per night	> 30 cars per night
connectivity			
isolation due to landuse in the direction of migration ¹⁾	0% to 10% blocked	10% to 25% blocked	>25% blocked

¹⁾ isolation caused by dense forest or city areas

Rana arvalis			
Criteria	"favourable"	"good"	"unfavourable"
Population	excellent	good	average - bad
Size	>500 clutches	100 - 500 clutches	< 100 clutches
Structure	reproductional success		no reproduction
Habitat	excellent	good	average - bad
aquatic			
Number and size of waterbodies	>10 small waterbodies with total surface > 5.000 m²	>5 small waterbodies with total surface >2.500 m²	<5 small waterbodies with total surface <2.500 m²
% of shallow areas (<40cm depth)	>70%	40%-70%	<40%
sun exposition in %	>70%	40%-70%	<40%
% cover submerge vegetation	>60%	30% - 60%	>30%
terrestrial			
distance to suitable terrestrial habitats (wet meadows, wet forest >1ha)	0 m	1-200 m	> 200m
Microhabitats / hiding places	Good conditions for hiding in holes, under grass tufts etc., or the soil is peaty or sandy and thereby easy to dig in	Not as good conditions as in previous case	Barren landscape with few hiding places, and the soil not easy to dig in
connectivity			
distance to the next population	<200 m	200 m to 600m	>600 m
Intact corridors of suitable foraging habitat	Extensive corridor network with contact to all breeding sites	Not all breeding sites in contact with corridors; corridors interrupted over distances of up to 200 m.	Breeding sites not connected via corridors, corridors interrupted over distances of more than 200 m.
Threats	none	average	strong
aquatic			
presence of fish	none	Few fish, but tadpoles may avoid predation by living in dense submerge vegetation	Many fish, and/or few possibilities for tadpoles to hide
Eutrophication	Good water quality	Plant and animals species requiring especially good water quality are absent	direct inflow of eutrophication visible
terrestrial			
loss of good foraging habitats	no loss of habitats anticipated within the next 5 years	loss of <30% of habitats anticipated within the next 5 years, corridors will be more broken	loss of >30% of habitats anticipated within the next 5 years, corridors will be massively broken
other (e.g. roads, pollution etc)	on site expertise from herpetologist		
connectivity			
isolation due to roads in the direction of migration	< 10 cars per night	10 to 30 cars per night	> 30 cars per night
Isolation due to landuse in the direction of migration ¹⁾	0% to 10% blocked	10% to 25% blocked	>25% blocked

Rana lessonae, pure populations			
Criteria	"favourable"	"good"	"unfavourable"
Population	excellent	good	average - bad
Size	>200 callers	50 - 200 callers	< 50 callers
Structure	reproductional success		no reproduction
Habitat	excellent	good	average - bad
aquatic			
Number and size of waterbodies	>10 small waterbodies with total surface > 5.000 m ²	>5 small waterbodies with total surface >2.500 m ²	<5 small waterbodies with total surface <2.500 m ²
sun exposition in %	> 95 %	80%-95%	<80%
% cover submersed vegetation	>80%	20% - 80%	<20%
terrestrial			
Landscape around the reproduction ponds, extent of oligotrophic habitats (bogs and conifer forest)	All oligotrophic within 5 km radius	All oligotrophic within 2 km radius	All oligotrophic within 500 m radius or less
distance to hibernation sites (dry, sandy soil, preferably in forest)	<100m	100 m – 500 m	> 500m
connectivity			
distance to the nearest esculentus population	> 5 km	> 2 km	> 500 m
Threats	none	average	strong
aquatic			
presence of fish	none	none	yes
Eutrophication	none visible	eutrophication indicators visible	direct inflow of eutrophication visible
Shade from tree growth	Tree stands do not increase	Some young trees near the pond may survive and grow up	Much growth of young trees which will increasingly shade the pond and lower the water table
surroundings			
Water level	Water level constant	Water level may rise, whereby fish enter the pond, or decrease, whereby the pond may dry out in dry summers	Water level in the bog is reduced markedly, whereby it becomes more dry, resulting in tree growth and some eutrophication
connectivity			
Artificial ditches and canals	No ditches or canals	Small ditches which are not very suitable for migrating frogs	Long, coherent system of waterfilled ditches that allow individuals of esculentus to immigrate



Lacerta agilis			
Criteria	"favourable"	"good"	"unfavourable"
Population	excellent	good	average - bad
activity rate	> 15 adults & subadults recorded per h	5 to 15 adults & subadults per h	< 5 adults & subadults per h
Reproduction	> 10 juveniles seen in late summer	1-10 juveniles seen in late summer	no reproduction
Habitat	excellent	good	average - bad
Habitat			
structure	well-developed mosaic pattern of different structures	mosaic pattern with more monotonous areas	monotonous areas
number of sun basking places / ha	>20	10 to 20	<10
number of stone piles, hedges, dead trees etc / ha	>20	10 to 20	<10
sun exposition of total habitat in %	>80%	60%-80%	<60%
egg laying sites per ha	>50m ²	20 to 50 m ²	<20m ²
connectivity*			
distance to the next population / colony	<700 m	700m to 1500m	>1500 m
Habitat between populations	easy to pass for L. agilis	L. agilis can pass	impossible to pass for L. agilis
Threats	none	average	strong
Anticipated changes in tree cover	Open land or mixed structure of open land and tree/bush stands will remain	Trees are gradually growing up, shading gradually more	Large open areas will be planted with trees
Cultivation	No cultivation anticipated	< 30 % of the habitat may be turned into arable fields	> 30 % of the habitat may be turned into arable fields
predation *	no presence of predators detected	predators present, but no immediate impact observed	predators frequent, high level of predation anticipated

* predators are e.g. domestic cats, and some species of birds of prey