

## Rana temporaria

**Taxonomic Authority:** Linnaeus, 1758

### Synonyms:

<i>Rana aragonensis</i>	Planca Soler, Rodriguez Vieites and Garcia-París, 1996
<i>Rana honnorati</i>	Héron-Royer, 1881
<i>Rana platyrrhinus</i>	Steenstrup, 1847
<i>Rana muta</i>	Laurenti, 1768

**Region:** 10

## **Common Names:**

European Common Frog	English
Rana Bermeja	Spanish
rana temporaria	Italian
Travyanaya Lyagushka	Russian
Zaba Trawna	Polish

**Order:** Anura

**Notes on taxonomy:** *Rana aragonensis* is included as a synonym of *R. temporaria* following the work of Veith et al. (2002). *Rana honnorati* is included in *R. temporaria* following Veith et al. (2003).

## **General Information**

## Biome

Terrestrial

### Freshwater

Marine

#### **Geographic Range of species:**

It is widespread throughout most of Europe, ranging from northern Spain to the Urals (absent from southern and central Iberia, much of southern Italy [scattered Appenine populations] and the Caucasus), and eastwards to the western part of West Siberia and northern Kazakhstan through northern Greece and Bulgaria. Recorded from sea level to elevations approaching 2,700m asl (Pyrenees).

#### **Conservation Measures:**

It is listed on Appendix III of the Berne Convention and on Annex V of the EU Natural Habitats Directive. It has been recorded in a number of national and sub-national Red Data books and lists, and is protected by national legislation in a number of countries. It is present in many protected areas. In parts of its range, mitigation measures to reduce road kill have been established.

#### **Species population information:**

It is generally very common, although localised declines have recently been noted in a number of western European countries (eg. Switzerland, Spain).

#### **Habitat and Ecology Information:**

Many terrestrial (associated with woodland) and aquatic habitat types are used. Present in coniferous, mixed and deciduous forests, forested tundra and steppe, bush and shrublands, glades, grasslands, dry and wet meadows, marshes, fields, rural gardens, parks, and urban areas. Aquatic habitats include both temporary and permanent ponds, lakes and rivers; spawning and larval development occurs in these waterbodies. It does well in many modified habitats such as rural gardens.

### **Threats:**

There are no major threats to this species. The main localised threat is the general pollution and drainage of breeding sites and wetlands. Over collection for medical research, food and commercial purposes (ie. pet trade) is a threat in parts of its range. Deforestation may have led to a gradual "northward retreat" of the species over southern parts of its distribution.

## Country Distribution

Slovakia	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Slovenia	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Spain	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Sweden	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Switzerland	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
United Kingdom	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
Serbia and Montenegro	<input checked="" type="checkbox"/>	<input type="checkbox"/>					

FAO Marine Habitats	Native - Presence Confirmed	Native - Presence Possible	Extinct	Reintroduced	Introduced
---------------------	-----------------------------	----------------------------	---------	--------------	------------

## Major Lakes

## Major Rivers

<b>Upper Level Habitat Preferences</b>	<b>Score</b>	<b>Lower Level Habitat Preferences</b>	<b>Score</b>
1.1 Forest - Boreal	1	Broadleaf Forest	1
1.2 Forest - Subarctic	1	Cold Grassland	2
1.4 Forest - Temperate	1	Conifer Boreal Forest	1
3.1 Shrubland - Subarctic	1	Conifer Forest	1
3.3 Shrubland - Boreal	1	Cool Broadleaf Forest	1
3.4 Shrubland - Temperate	1	Cool Conifer Forest	1
4.1 Grassland - Tundra	2	Cool Crops and Towns	1
4.2 Grassland - Subarctic	2	Cool Fields and Woods	2
4.4 Grassland - Temperate	1	Cool Forest and Field	1
5.1 Wetlands (inland) - Permanent Rivers/Streams/Creeks (includes waterfalls)	1	Cool Mixed Forest	1
5.2 Wetlands (inland) - Seasonal/Intermittent/Irregular Rivers/Streams/Creeks	1	Crops and Towns	1
5.4 Wetlands (inland) - Bogs, Marshes, Swamps, Fens, Peatlands	1	Crops, Grass, Shrubs	1
5.5 Wetlands (inland) - Permanent Freshwater Lakes (over 8ha)	1	Deciduous and Mixed Boreal Forest	1
5.6 Wetlands (inland) - Seasonal/Intermittent Freshwater Lakes (over 8ha)	1	Deciduous Broadleaf Wood	1
5.7 Wetlands (inland) - Permanent Freshwater Marshes/Pools (under 8ha)	1	Deciduous Coniferous Forest	1
5.8 Wetlands (inland) - Seasonal/Intermittent Freshwater Marshes/Pools (under 8ha)	1	Evergreen Forest and Fields	1
5.9 Wetlands (inland) - Freshwater Springs and Oases	2	Fields and Woody Savanna	2
5.10 Wetlands (inland) - Tundra Wetlands (incl. pools and temporary waters from snowmelt)	2	Forest and Field	1
5.13 Wetlands (inland) - Permanent Inland Deltas	1	Grass Crops	2
11.1 Artificial/Terrestrial - Arable Land	1	Heath Scrub	2
11.2 Artificial/Terrestrial - Pastureland	1	Low Sparse Grassland	2
11.3 Artificial/Terrestrial - Plantations	2	Marsh Wetland	1
11.4 Artificial/Terrestrial - Rural Gardens	1	Mire, Bog, Fen	1
11.5 Artificial/Terrestrial - Urban Areas	1	Mixed Forest	1
12.1 Artificial/Aquatic - Water Storage Areas (over 8ha)	1	Narrow Conifers	1
12.2 Artificial/Aquatic - Ponds (below 8ha)	1	Shrub Deciduous	2
12.3 Artificial/Aquatic - Aquaculture Ponds	1	Small Leaf Mixed Woods	1
12.5 Artificial/Aquatic - Excavations (open)	2	Upland Tundra	2
12.6 Artificial/Aquatic - Wastewater Treatment Areas	2	Urban	1
12.8 Artificial/Aquatic - Seasonally Flooded Agricultural Land	2	Wooded Tundra	1
13 Introduced vegetation	2	Woody Savanna	2

## Major threats

Code	Description of threat	Past	Present	Future	<b>Conservation Measures</b>		In place	Needed
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Code	Conservation measures		
13	None	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1	Policy-based actions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					1.2	Legislation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					1.2.1	Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>
					1.2.1.1	International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1.2.1.2 National level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2 Implementation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2.1 International level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
1.2.2.2 National level	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Communication and Education	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2.2 Awareness	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 Research actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.1 Taxonomy	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.2 Population numbers and range	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.3 Biology and Ecology	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.4 Habitat status	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.5 Threats	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.6 Uses and harvest levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.8 Conservation measures	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3.9 Trends/Monitoring	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4 Habitat and site-based actions	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.1 Maintenance/Conservation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.2 Restoration	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4.4 Protected areas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4.4.2 Establishment	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.4.3 Management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5 Species-based actions	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.3 Sustainable use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5.3.1 Harvest management	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Utilisation of Species

#### Purpose/Type of Use

	Subsistence	National	International	Other purpose:
1. Food - human	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3. Medicine - human and veterinary	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Pets/display animals, horticulture	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
14. Research	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

#### Primary forms removed from the wild

100% >75% 51-75% 26-50% <25% Other forms removed from the wild:

1. Whole animal/plant	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
-----------------------	-------------------------------------	--------------------------	--------------------------	--------------------------	--------------------------

#### Source of specimens in commercial trade

100% >75% 51-75% 26-50% <25% Other source of specimens:

Wild	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
------	-------------------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Trend in wild offtake/harvest in relation to total wild population numbers over last five years:

Unknown

Trend in offtake/harvest produced through domestication/cultivation over last five years:

CITES: Not listed

### Red Listing

Red List Assessment: Least Concern (LC)

Possibly Extinct

#### Red List Criteria:

Rationale for the Red List Assessment: Listed as Least Concern in view of its wide distribution, tolerance of a broad range of habitats, presumed large population, and because it is unlikely to be declining fast enough to qualify for listing in a more threatened category.

Current Population Trend: Stable

Date of Assessment: 4/5/2004

Assessor(s): Sergius Kuzmin, Vladimir Ishchenko, Boris Tuniyev, Trevor Beebee, Franco Andreone, Per Nyström, Brandon Anthony, Benedikt

#### Notes on Red listing:

### Bibliography

, 1995, , Amphibian Populations in the Commonwealth of Independent States: Current Status and Declines, Kuzmin, S.L. Dodd Jr, C.K. and

Pikulik, M.M., , Pensoft, Moscow

Cooke, A.S., 1995, Road mortality of common toads (*Bufo bufo*) near a breeding site, 1974-1994, *Amphibia-Reptilia*, , , 16(1), 87-90, ,

Puky, M. et al., 2003, , Preliminary herpetological atlas of Hungary, , , pp. 86, Varangy Akciócsoporthoz Egyesület, Budapest

Arnold, E.N., 2003, , Reptiles and amphibians of Europe, , , 288, Princeton University Press,

Cooke, A.S., 1972, Indications of recent changes in status in British Isles of frog (*Rana temporaria*) and toad (*Bufo bufo*), *Journal of Zoology*, , , 167, 161, ,

Gerlach, G. and Bally, A., 1992, Mass mortality of the common frog (*Rana temporaria*) in northern Switzerland, *FrogLog*, , , 6, 2, ,

Vershinin, V.L., 1997, Report from the Urals, *FrogLog*, , , 21, , ,

Gosá, A., 1998, El declive de una población costera cantábrica de rana bermeja (*Rana temporaria*), *Munibe*, , , 50, 59-71, ,

- Cooke, A.S., 2000, Monitoring a breeding population of Common Toads (*Bufo bufo*) in a housing development, *Herpetological Bulletin*, , , 74, 12-15, ,
- Puky, M., 2000, A kétéltűek védelme Magyarországon (Conservation of amphibians in Hungary), , Gerinces állatfajok védelme (Conservation of vertebrate species), Faragó, S., , 143-158, Nyugat-Magyarországi Egyetem Erdőmérnöki Kar, Sopron
- Kuzmin, S.L., 1995, , , Die Amphibien Russlands und Angrenzender Gebiete, , , Westarp – Spektrum, Magdeburg - Heidelberg
- Salvador, A., 1996, Amphibians of northwest Africa, Smithsonian Herpetological Information Service, , , 109, 1-43, ,
- Vences, M., Galán, P., Palanca, A., Vieites, D.R., Nieto, S. and Rey, J., 2000, Summer microhabitat use and diel activity cycles in a high altitude Pyrenean population of *Rana temporaria*, *Herpetological Journal*, , , 10(2), 49-56, ,
- Arano, B., Esteban, M. and Herrero, P., 1993, Evolutionary Divergence of the Iberian Brown Frogs, *Ann Sci Natur-Zool Biol Anim.*, , , 14(2), 49-57, ,
- Dely, G., 1967, , , Kétéltűek-Amphibia: Magyarország Állatvilága, Faunae Hungariae, , , Ákadémiai Kiadó, Budapest
- Mlynarski, M., 1966, Plazy I Gady Polski, Panstwowe Zakłady Wydawnictw Szkolnych, Warszawa, , , 75, , ,
- Smit, G., 1998, DAPTF-Netherlands Report, *FrogLog*, , , 28, , ,
- Garanin, V.I., 2000, The distribution of amphibians in the Volga-Kama region, , Advances in Amphibian Research in the former Soviet Union, , 5, 79-132, ,
- Kuzmin, S.L., 1999, , , The Amphibians of the Former Soviet Union, , , Pensoft, Sofia-Moscow
- Arnold, H.R., 1995, Atlas of amphibians and reptiles in Britain, ITE research publication, , , 10, 40, , London, UK
- Grossenbacher, K., 1994, Rote Liste der gefährdeten Amphibien der Schweiz, , Rote Liste der gefährdeten Tierarten in der Schweiz, BUWAL, , 33-34, BUWAL (Bundesamt für Umwelt, Wald und Landschaft), Bern
- Kalezic, M. and Dzukic, G., 2001, Amphibian status in Serbia and Montenegro (FR Yugoslavia), *FrogLog*, , , 45, , ,
- Dubois, A., 1984, Notes sur les grenouilles brunes (Groupe de *Rana temporaria* Linné, 1758). III. Un critere meconnu pour distinguer *Rana dalmatina* de *Rana temporaria*, *Alytes*, , , 3(4), 117-124, ,
- Kuzmin, S.L., 1996, Threatened amphibians in the former Soviet Union: the current situation and the main threats, *Oryx*, , , 30, 24-30, ,
- , 1997, , , Atlas of Amphibians and Reptiles in Europe, Gasc, J.-P., , 494, Societas Europea Herpetologica & Museum National d'Histoire Naturelle, Paris
- Schabetsberger, R., Langer, H., Jersabek, C.D. and Goldschmid, A., 2000, On age structure and longevity in two populations of *Bufo bufo* (Linnaeus, 1758), at high altitude breeding sites in Austria (Anura: Bufonidae), *Herpetozoa*, , , 13(3/4), 187-191, ,
- Korky, J.K. and Webb, R.G., 1993, Breeding habits of the common frog, *Rana temporaria* L. (Anura: Ranidae) in the Republic of Ireland, *Bulletin of the Irish Biogeographical Society*, , , 16, 18-29, ,
- Cunningham, A.A., Langton, T.E., Bennett, P.M., Drury, S.E., Gough, R.E. and Kirkwood, J.K., 1993, Unusual mortality associated with poxvirus-like particles in frogs (*Rana temporaria*), *Veterinary Record*, , , 133(6), 141-2, ,
- Vogrin, N., 1997, The Status of Amphibians in Slovenia, *FrogLog*, , , 20, , ,
- Veith, M., Vences, M., Vieites, D.R., Nieto-Roman, S. and Palanca, A., 2002, Genetic differentiation and population structure within the Spanish common frogs (*Rana temporaria* complex; Ranidae, Amphibia), *Folia Zoologica*, , , 51(2), 307-318, ,
- Cunningham, A.A., Langton, T.E.S., Bennett, P.M.B., Lewin, J.F., Drury, S.E.N., Gough, R.E. and Macgregor, S.K., 1996, Pathological and microbiological findings from incidents of unusual mortality of the common frog (*Rana temporaria*), *Philosophical Transactions of the Royal Society, London: Biological Sciences*, , , 351, 1539-1557, ,
- Galán, P., 1989, Diferenciación morfológica y selección de hábitats en las ranas pardas del noroeste ibérico: *Rana iberica* Boulenger, 1879 y *Rana temporaria* parvipalmata Seoane, 1885, *Trebails. Soc. Cat. Ictio. Herp.*, , , 2, 193-209, ,
- Viertel, B., 1999, Salt tolerance of *Rana temporaria*: spawning site selection and survival during embryonic development (Amphibia, Anura), *Amphibia-Reptilia*, , , 20(2), 161-171, ,
- Pleguezuelos, J.M., Márquez, R. and Lizana, M., 2002, , , Atlas y Libro Rojo de los Anfibios y Reptiles de España, , , pp 584, Dirección General de la Conservación de la naturaleza-Associación Herpetológica Española, Madrid
- Veith, M., Kosuch, J. and Vences, M., 2003, Climatic oscillations triggered post-Messian speciation of Western Palearctic brown frogs (Amphibia, Anura, Ranidae), *Molecular Phylogenetics and Evolution*, , , 26, 310-327, ,
- Pleguezuelos, J.M. and Villafranca, C., 1997, Distribución altitudinal de la herpetofauna ibérica, , *Distribucion y Biogeografia de los Anfibios y Reptiles en España y Portugal*, Pleguezuelos, J.M., , pp. 321-34, *Monografías de Herpetología* 3. Universidad de Granada-Asociación Herpetológica Española, Granada,
- Meyer, A.H., Schmidt, B.R. and Grossenbacher, K., 1998, Analysis of three amphibian populations with quarter-century long time-series, *Proceedings of the Royal Society of London. B.*, , , 265, 523-528, ,
- Cooke, A.S. and Oldham, R.S., 1995, Establishment of populations of the common frog, *Rana temporaria*, and common toad, *Bufo bufo*, in a newly created reserve following translocation, *Herpetological Journal*, , , 5, 173-180, ,
- Puky, M., 2003, Amphibian mitigation measures in Central-Europe, , Proceedings of the International Conference on Ecology and Transportation, 26-31 August, 2003, Lake Placid, New York, USA, Irwin, L.C., Garrett, P. and McDermott, K.P., , 413-429, Center for Transportation and the Environment, North Carolina State University, USA,
- Kovács, T. and Papp, M., 2002, Breeding pond survey in Hungary: and example of sucessful cooperation, *FrogLog*, , , 50, , ,
- Pidancier, N., Gauthier, P., Miquel, C. and Pompanon, F., 2002, Polymorphic microsatellite DNA loci identified in the common frog (*Rana temporaria*, Amphibia, Ranidae), *Molecular Ecology Notes*, , , 2(3), 304, ,
- Mensi, P., Lattes, A., Macario, B., Salvidio, S., Giacoma, C. and Balletto, E., 1992, Taxonomy and evolution of European brown frogs, *Zoological Journal of the Linnean Society*, , , 104, 293-311, ,
- Denton, J., 2001, *Rana temporaria* (Common Frog): Occurrence in ground water springs, *Herpetological Bulletin*, , , 76, 30, ,
- Fog, K., 1995, Amphibian conservation in Denmark, *FrogLog*, , , 13, , ,
- Cooke, A.S., 1975, Spawn site selection and colony size of the frog (*Rana temporaria*) and the toad (*Bufo bufo*), *Journal of Zoology*, , , 175, 29-38, ,
- Galán, P., 1999, Conservación de la herpetofauna gallega. Situación actual de los anfibios y reptiles de Galicia, Universidade da Coruña, Monografía 72. A Coruña., , , 286pp, ,

- Miaud, C., Guyétant, R. and Elmberg, J., 1999, Variations in life-history traits in the Common frog *Rana temporaria* (Amphibia, Anura): a literature review and new data from the French Alps, *Journal of Zoology*, , , 249, 61-73, ,
- Capula, M. and Bagnoli, C., 1982, Il *Triturus alpestris* (Laurenti) e la *Rana temporaria* L. nell'Appennino centrale, *Boll. Mus. Civ. St. Nat. Verona*, , , 9, 333-344, ,
- Joly, P., 1992, The amphibian fauna of the French Upper-Rhône floodplain. The Labours marsh and Jons sector, *Alytes*, , , 10(4), 117-129, ,
- Vences, M., Palanca Soler, A., Rodriguez Vieites, D. and Nieto Roman, S., 1997, Designation and description of a lectotype of *Rana aragonensis* Palanca Soler et al., 1995, *Herpetozoa*, , , 30(3/4), 129-134, , Vienna
- Pleguezuelos, J.M., 1997, , , Distribucion y Biogeografia de los Anfibios y Reptiles en España y Portugal, , , , Asociacion Herpetologica Española, Las Palmas de Gran Canarias
- Dubois, A., 1982, Notes sur les grenouilles brunes (Groupe de *Rana temporaria* Linne, 1758). I. Introduction, *Alytes*, , , 1(4), 56-70, ,
- Severtsov, A.S., Lyapkov, S.M. and Surova, G.S., 1998, Relationships of the ecological niches in *Rana temporaria* and *Rana arvalis*, *Zhurnal Obshchey Biologii*, , , 59, 279-301, ,
- Gerlach, G. and Bally, A., 1992, Das Grasfroschsterben in der Nord-Schweiz, *Schriftenreihe Umwelt - Natur und Landschaft*, , , 192, 1-82, , Bern, Switzerland
- Watson, W., 1999, Amphibians and *Crassula helmsii*, *FrogLog*, , , 31, , ,
- Luscher, B., Grossenbacher, K. and Scholl, A., 2001, Genetic differentiation of the common toad (*Bufo bufo*) in the Swiss Alps, *Amphibia-Reptilia*, , , 22(2), 141-154, ,
- Bannikov, A.G., Darevsky, I.S., Ishchenko, V.G., Rustamov, A.K. and Szczerbak, N.N., 1977, , , Opredelitel Zemnovodnykh i Presmykayushchikhsya Fauny SSSR [Guide to Amphibians and Reptiles of the USSR Fauna], , , Prosvechshenie, Moscow
- Loman, J., 2003, Inventering av vanlig groda och åkergröda i Skåne 2002, Skåne i utveckling, , , 2003(19), 1-28, ,
- Szilárd, N. and Csengele, K., 2001, Amphibian harvesting in Romania, *FrogLog*, , , 44, , ,
- Halliday, T., 2001, Recent studies of European frogs reveal complexities of the link with UV-B, *FrogLog*, , , 48, , ,
- Anon., 1993, United Kingdom National Survey, *FrogLog*, , , 6, 2, ,