



The Conservation Activities for Amphibians in Tokyo by Ueno Zoological Gardens, Inokashira Park Zoo, Tama Zoological Park and Tokyo Sea Life Park

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Recently, amphibians have been decreasing worldwide. In Japan, the decrease of amphibians is especially notable in Tokyo. Tokyo Zoological Park Society (Ueno Zoological Gardens, Inokashira Park Zoo, Tama Zoological Park and Tokyo Sea Life Park) takes charge of conservation activities for 11 species of amphibians in Tokyo.



Red list

	Japan (2018)	Tokyo (2015)			
		23 wards	North Tama area	South Tama area	West Tama area
<i>Hynobius tokyoensis</i>	VU	-	CR	EN	EN
<i>Cynops pyrrhogaster</i>	NT	CR	EN	EN	EN
<i>Bufo japonicus formosus</i>	-	NT			
<i>Hyla japonica</i>	-	EN	VU	VU	NT
<i>Rana japonica</i>	-	EN	EN	EN	VU
<i>Rana ornativentris</i>	-	-	EN	EN	NT
<i>Rana rugosa</i>	-	CR	CR	CR	VU
<i>Rana porosa porosa</i>	NT	CR	EN	EN	VU
<i>Rhacophorus schlegelii</i>	-	CR	VU	VU	NT
<i>Rhacophorus arboreus</i>	-	-	NT	NT	NT
<i>Buergeria buergeri</i>	-	-	VU	VU	NT

CR : Critically Endangered
EN : Endangered
VU : Vulnerable
NT : Near Threatened

As to ex-situ conservation, the three zoos and the aquarium gain merit by conserving individuals from the same habitat because we can easily exchange breeding individuals to maintain genetic diversity and the population size.

Establishing breeding methods is an urgent issue.

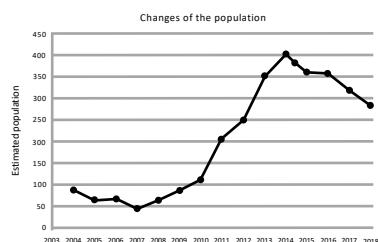
Currently, 10 amphibian species have bred successfully.

	Successful year and place												Fertilization generation	Spawning Season	Days to hatching
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018			
<i>Cynops pyrrhogaster</i>	IPZ	IPZ			IPZ TSLP	TSLP	IPZ TSLP						F1	February - April	30^60
<i>Bufo japonicus formosus</i>		IPZ	IPZ	IPZ TSLP	Ueno IPZ TSLP	F2	Mardi - May	14^21							
<i>Hyla japonica</i>															
<i>Rana japonica</i>	TSLP	TSLP	IPZ	IPZ TSLP	F4	February - March	14^21								
<i>Rana ornativentris</i>			Tama		F1	February - March	7^14								
<i>Rana rugosa</i>	IPZ TSLP	IPZ TSLP	IPZ TSLP	IPZ TSLP	IPZ TSLP							F2	Mardi - August	2^14	
<i>Rana porosa porosa</i>						IPZ	IPZ		IPZ			F1	April - July	7^14	
<i>Rhacophorus schlegelii</i>						TSLP				IPZ TSLP		F2	April - June	14^21	
<i>Rhacophorus arboreus</i>									Ueno			F1	Mardi - July	5^14	
<i>Buergeria buergeri</i>												F1	Mardi - July	4^7	

Ueno : Ueno Zoological Gardens
IPZ : Inokashira Park Zoo
Tama : Tama Zoological Park
TSLP : Tokyo Sea Life Park

- Seasonal change : room temperature, water temperature, hours of sunlight
- Food for larva : green vegetables, dead leaves, dried fish, formulated feeds, tubifex etc.
- Food for adult : bred crickets
- Low temperature in winter is important for breeding of amphibians, but hibernation is not always necessary.

In-situ conservation of *Cynops pyrrhogaster* was started at approximately 20 km away from the downtown Tokyo in 2002. As the results of breeding condition researches and conditioning the environment, the estimated population has been increasing, but it has gradually declined in recent years.



Cynops pyrrhogaster

Distance to move	Maximum about 100 meters
Estimated population	250 ~ 400
Condition for breeding	ponds, live water plants



Creation of spawning place



Investigation of growth situation of eggs and larvae



Individual identification using abdominal pattern

Through the amphibian exhibitions, we try to introduce visitors to the charm of the animals and the current situation they are in. We carry out amphibian themed programs such as the special exhibitions, the field observations and the staff talk shows and field programs to tell the environmental importance of the amphibian habitats.



Exhibition at Tokyo Sea Life Park



Exhibition at Inokashira Park Zoo



outdoor education

Members

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