

# REPORT

Health Assessment of Turtles of Ganga Aqualife Rescue & Rehabilitation Centre, Narora



Submitted by

**Dr. Animesh Talukdar**  
Veterinary Officer,

WII-NMCG Biodiversity Conservation and Ganga Rejuvenation Project  
Component IV- Rescue and Rehabilitation



भारतीय वन्यजीव संस्थान  
**Wildlife Institute of India**

# REPORT

Health Assessment of Turtles of Ganga Aqualife Rescue & Rehabilitation Centre, Narora  
July, 2018

---

## Component IV- Rescue and Rehabilitation

WII-NMCG Biodiversity Conservation and Ganga Rejuvenation Project

---

### Research Team

Project Leader : Dr. S.A. Hussain  
Coordinating faculty : Dr. Pradeep K. Malik  
Dr. Parag Nigam  
Subject Matter  
Specialist (VHM) : Dr. GowriMallapur  
Researcher : Dr. AnimeshTalukdar (Veterinary Officer)  
Project Fellow : Mr Akshay Bajaj  
Field Assistant : Omvir Singh, Rajkumar Nishad

### Formatting and Layout:

---

WII-NMCG (2018). Ganga Aqualife Rescue and Rehabilitation Centre, Narora, WII-NMCG Biodiversity Conservation and Ganga Rejuvenation Project. Pp.8

## INTRODUCTION

### Background and Purpose

The Ganga Aqualife Rescue and Rehabilitation Centre, Narora functioning under the aegis of the WII-NMCG Biodiversity Conservation and Ganga Rejuvenation project since December 2016 presently houses 6 species of turtles. This facility currently primarily functions as a rescue and rehabilitation facility. The first technical assessment visit was made in February 2018 by Dr. Gowri Mallapur and action items were highlighted for up-gradation in the infrastructure and husbandry protocols at the facility. Another report was also submitted titled Assessment and Activity Report, Ganga Aqualife Rescue and Rehabilitation Centre, Narora in July 2018, wherein their documentation related to modifications put in place for species wise separation, enrichment and sanitation hygiene protocols/ Additionally as a part of the plan for the visit a health assessment of the animals at the facility was carried out.

List of animals currently housed at Ganga Aqualife Rescue and Rehabilitation Centre, Narora

SI No	Species	Number of individuals
1	<i>Lissemys punctata</i> (Indian Flapshell Turtle)	2
2	<i>Geoclemys hamiltonii</i> (Spotted Pond Turtle)	7
3	<i>Batagur dhongoka</i> (Three Striped Roofed Turtle)	6
4	<i>Pangshura tecta</i> (Indian Tent turtle)	1
5	<i>Pangshura smithii</i> (Brown Roofed Turtle)	1
6	<i>Hardella thurjii</i> (Crowned River Turtle)	1
<b>TOTAL</b>		<b>18</b>

Most of these animals have been at the Ganga Aqualife Rescue and Rehabilitation Centre, Narora for more than 1 year and they have shown progressive improvement in body condition, size and activity. Based on this health assessment their fitness for release may be determined.

### WEIGHT GAIN DATA

SPECEIES	ID	March Weight (gram )	April Weight (gram )	May Weight (gram )	July Weight (gram )
<i>Lissemys punctata</i>	Spot	1210	1285	1310	1469
	Dot	1475	1545	1640	1770
<i>Geoclemys hamiltonii</i>	1	1465	1470	NA	1810
	2	1530	1605	NA	1980
	3	1665	1700	NA	2095
	4	1155	1220	NA	1980
	5	800	860	NA	1240
	6	100	100	NA	150
	7	50	55	NA	80
<i>Batagur dhongoka</i>	2	115	160	210	320
	3	135	240	290	380
	4	175	190	250	350
	5	125	135	160	215
	6	140	160	220	270
	7	125	130	180	275
<i>Pangshura tecta</i>		145	160	195	270
<i>Pangshura smithii</i>		75	80	NA	105
<i>Hardella thurjii</i>		155	400	415	420

Findings: From the above data it shows that there is a significant weight gain for the animals over the time period (Fig. 1,2,3,4,5,6).

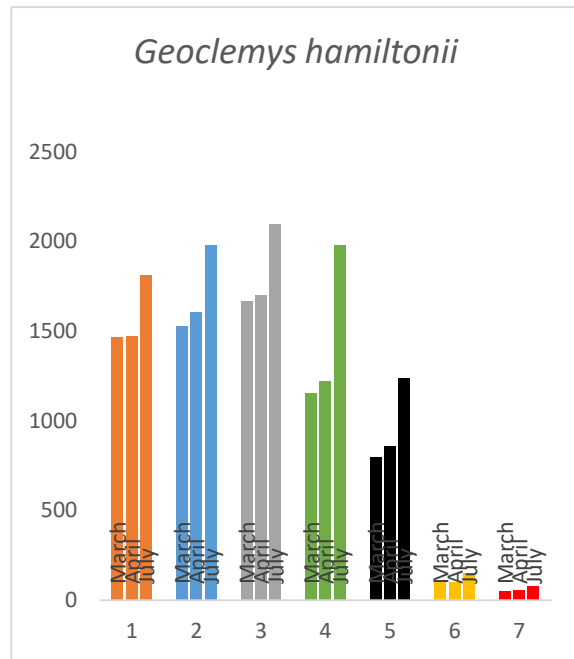
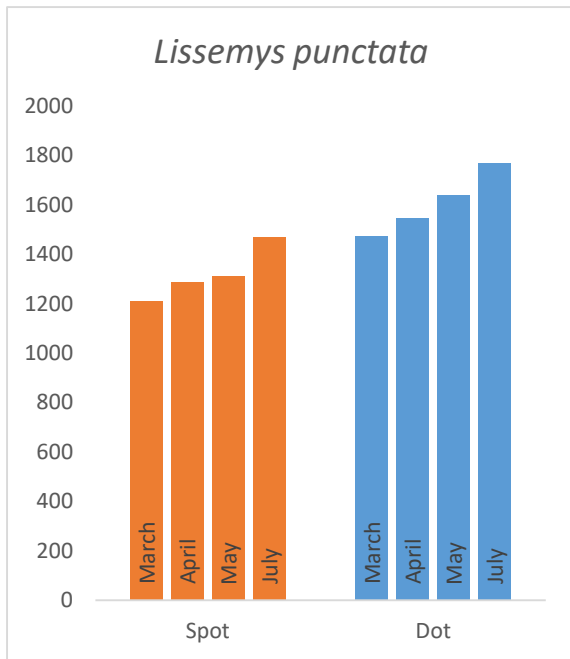


Fig 1. Growth rate of *Lissemys punctata*

Fig 2. Growth rate of *Geoclemys hamiltonii*

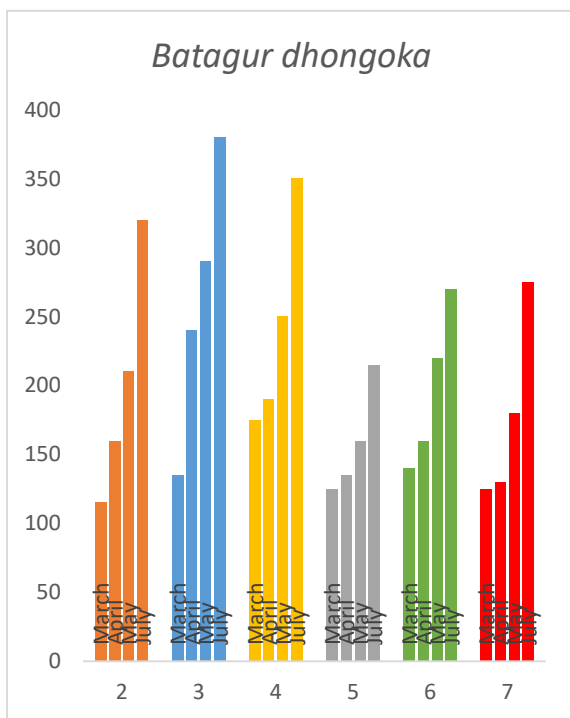


Fig 3. Growth rate of *Batagur dhongoka*

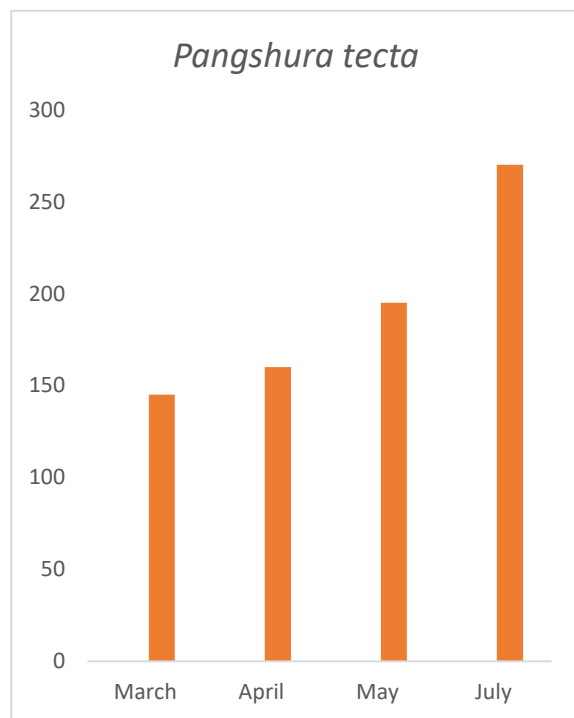


Fig 4. Growth rate of *Pangshura tecta*

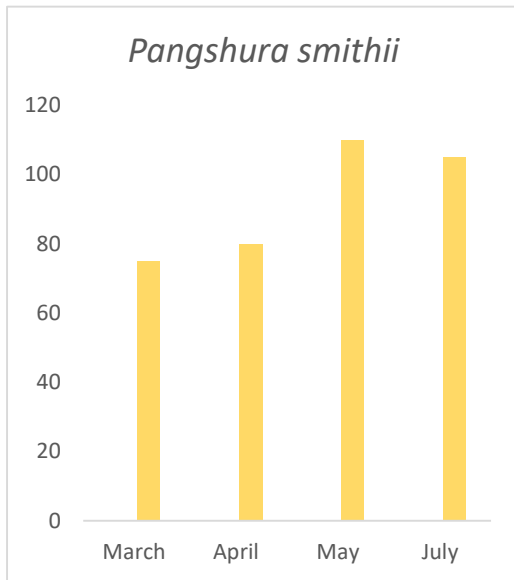


Fig 5. Growth rate of *Pangshura smithii*

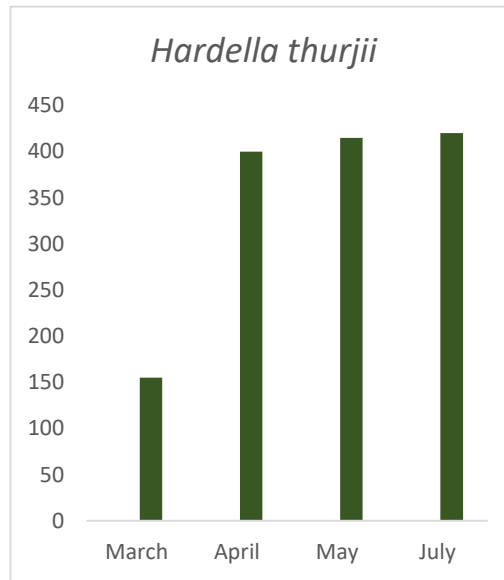


Fig 6. Growth rate of *Hardella thurjii*

### HEALTH ASSESSMENT:

Health assessment was done on the basis of History and examination for external injury, presence of any lesions over the external body parts and exudates coming out from natural orifices along with faecal examination (Annexure I). Blood collection was also followed for 10% of the total population, but as the blood reference value for freshwater turtles are not published yet (for the species housed at centre) the data cannot be used for evaluation of health (Annexure II).

Based on finding following results were found

SPECEIES	ID	Condition	Hydration	Respiration	Neurological	Head	Upper beak	Lower beak	Mouth	Ears	Eyes	Nostrils	Legs	feet	Toes	skin	Vent	Observations
Lissemys punctate	Sp	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	ot	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
Geoclemys hamiltonii	1	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	2	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	3	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	4	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	5	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	6	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	7	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
Batagur dhongoka	2	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	3	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	4	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	5	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	6	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	7	A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
	Pangshura tecta		A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N
Pangshura smithii		A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy
Hardella thurjii		A	N	N	N	N	N	N	No lesions	No exudates	Clear	No discharge	No injury	N	N	No lesions	N	Healthy

A= Active; N= Normal

## CONCLUSION:

Though morphometric data showed that there is significant weight gain for all the turtles. It is also seen that the animals are in healthy condition without any disease and injury. All the animals are healthy and active and are fit for release to their natural habitat.

**Annexure I**

Sample Patient Examination Form  
EXAMINATION FORM

Condition: alert lethargic unconscious  
Hydration: normal dehydrated (slight / moderate / severe)  
Respiration: normal open mouth labored noise other

---

Neurological: normal headtilt circling  
other \_\_\_\_\_

Head: normal trauma fracture blood fly eggs maggots  
skull  
upper beak  
lower beak

Notes:

Mouth:

Glottis:

Oral mucosa Color:

Ears:

Eyes:

Nostrils:

Legs:

Feet:

Toes:

Skin:

Vent:

Weight at admittance:

Observations

**Annexure II**

PARAMETERS	OBSERVED RANG IN REPTILES	ID			
		GH 1	GH3	GH4	PT
Total Erythorocyte Count	0.3-2.5X10ul				
Haemoglobin	6 and 10g/dl				
Packed Cell Volume	20% to 40%				
Total Leucocyte count	2-10X10 ul				
Thrombocyte	25% to 35%				
Heterophills	<40%	21%	16%	18%	23%
Eosinophils	<20%	1%		2%	
Lymphocytes	Highly Variable (80%Or more)	64%	58%	66%	67%
Monocytes	0-10%	4%	12%	10%	3%
Basophils	0-40%	10%	14%	4%	7%
SGOT	IU/L	96.2			176.2
SGPT	IU /L	86.15			94.17
Albumin	mg/dl	3			2.1
Globulin	mg/dl	5.1			2.82
Creatine	Variable (mg/dL	4.1			0.94
Total protein	3-7 g/dl	8.1			4.92
Urea	mg/dl	74.2			34.12
Uric Acid	<10 mg /dL	4.66			3.85
Potassium	2-6L mEq/	3.52			4.45
Sodium	120-170 mEq	122.8			120
Chloride	100-130 mEq/l	88.3			92
Calcium	8-11 mg/dL	7.51			9.1
Phosphorus	1-5 mg/ dl				