WORLD JOURNAL OF PHARMACEUTICAL RESEARCH
SJIF Impact Factor 8.453
Volume 13, Issue 16, 1185-1189. Research Article ISSN 2277–7105

STUDY OF BEHAVIORAL CHANGES IN FRESH WATER CRABBARYTELPHUSA CUNICULARIS

[1]*Sawant Suraj Venkati and [2]Dr. Vidya V. Bhoyar

[1]Research Scholar, N.E.S. Science College Nanded.

[2]HOD Zoology Department, L.B.D.G. College, Umri.

Article Received on
02 July 2024,

Revised on 23 July 2024,
Accepted on 13 August 2024

DOI: 10.20959/wjpr202416-33632

***Corresponding Author**
Sawant Suraj Venkati
Research Scholar, N.E.S.
Science College Nanded.

ABSTRACT

In this study the fresh water crab *Barytelphusa cunicularis* is studied so as to understand its behavioral changes with respect to its tolerance capacity of change in its habit and habitat. In this study different tanks are used to keep crabs & observe their behavioral changes. The crabs were kept starve, under water stress and introduced with new mate at tanks for some time to observe their behavioral patterns. The crabs showed annoyed & aggressive behavior. During this aggressive phase they harmed not only their mates but also in some case they harm themselves too. Study focused on understanding behavioral pattern by allowing crabs to go through stress conditions & during that phase some observations are done.

KEYWORDS: Fresh water, Crab, *Barytelphusa cunicularis*, Behavior, Change, Mud crab, Nanded, District region, Observation, Pollutants, Phosphate, Nitrate.

INTRODUCTION

About 71% of the Earth's surface is covered by water. Out of total water concentration on earth 97% water in oceans and only 3% is fresh water. Out of this 3%, 68.7% water is in the form of icecaps and glaciers and 30.1% in ground water. Remaining water present in lakes and in rivers and in swamps. Approximately 9.5% total animal biodiversity found in fresh water. Out of this in India fantastic fresh water fauna and where to find them.

In Maharashtra around 29 fresh water crab species are found. In Marathwada region *Barytelphusa cunicularis* fresh water crab is found. In most of region of Maharashtra crab is used as food, people eat with fun, interestingly. Because of less study on *Barytelphusa*

cunicularis on different aspects, this study is important in various manners from different aspects. Its behavior is one of the most important characters. We should know idea about its behavior pattern so we can handle them very quietly and smoothly.

METHODOLOGY

To study the behavioral pattern of in crabs we used observative method. We provide such conditions that will may be affects the crabs. Firstly, we put crabs into empty glass tanks (Size = 12*6*12 inch) for day one. We haven't given food to them. On day 2, we put another crab into 3 tanks. In first aquarium we introduced 1 male on day 2 with previous one female crab. Then 2 crabs into aquarium 2 and 3 respectively. At evening we supply same poha and puffed rice to 3 crabs. We observed these 3 tanks for 2 days. We also provided water into tanks at evening in between 4:00 PM to 4:30 PM.

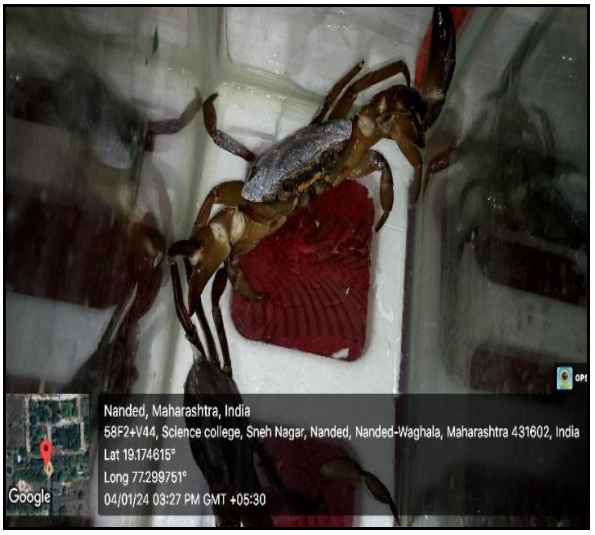
On next day between 11:30AM to 12:15PM we took out water from tank and with 1 day gap, we provide water into all 3 tanks respectively.

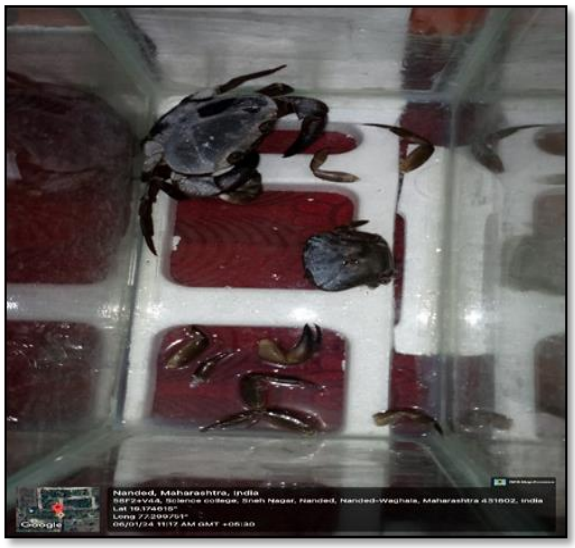
OBSERVATION

At day 1, we put 3 crabs into 3 tanks without food and water for 24hrs. At day 2, after introducing another male crab in aquarium, in which 1 female already present in it attacked on new crab. Female aggressively attacked on new crab and broke it chelate leg. We try to rescued it immediately but still during that rescue operation she broke its another 2-3 walking legs. At that day in evening, we provide poha & puffed rice along with water.

On next day, in 2nd aquarium, female crab's chelate leg & walking legs are broken by male crab. The crabs in 3rd aquarium were not aggressive. But on day 3, one crab at aquarium 3 died may be due to it chelate leg & 5-6 walking legs are broken down by himself & by another crab. We also observed a tremendous aggressive behavior in crab at aquarium 1 that it broke its legs by its self, may be due to lack of food.


GPS Map Camera
Nanded, Maharashtra, India
58F2+V44, Science college, Sneh Nagar, Nanded, Nanded-Waghala, Maharashtra 431602, India
Lat 19.174615°
Long 77.299751°
04/01/24 03:27 PM GMT +05:30
Google


Nanded, Maharashtra, India
58F2+V44, Science college, Sneh Nagar, Nanded, Nanded-Waghala, Maharashtra 431602, India
Lat 19.174615°
Long 77.299751°
04/01/24 03:27 PM GMT +05:30
Google



RESULTS AND CONCLUSION

As we observed crabs in 3rd aquariums, we can conclude that crabs' behavior changes from normal natural behavior to aggressive, attacking behavior. This happens due to lack of food or starvation, less space for moment, water stress (Continuous water presents around crab) may be due to temperature differentiation or due to another crab entered into its area or territory.

The aggressive behavior of crab is may be from opponent crab, due to some of the reasons crab gets so much aggressive & attack on another crab or organisms.

From our observative research study, we can suggest / conclude that, if we want to adapt crabs like pet or fish then we should follow some condition for better results. We should change water within 1-2 days. If your tank size is larger than (Size = 12*6*12 inch) you should change water within 4-7 days. At the bottom of tanks, you should supply some soil or sands and some stones (small and large). You should supply water with oxygen machine in tank. For better growth and results you should supply nutritive food materials like poha, puffed poha, chickens intestinal smash, algal bloom and other organic material food to crabs. If you want to grow crabs into large cement tanks, then you should apply one water exit opening at the bottom side of tank for removing water in regular days interval. Take precaution that, don't mix sand and rocks, stones together in aquarium condition. Apply sand or soil at bottom from one side to another like slop. At the thinner slop corner apply or put stones or rocks and from that side you should give one water remover exit so you can avoid flow of sand or soil with water.

REFERENCES

1. Arora, R. (2022, 04 26). *https://blog.nature.org/2022/04/26/indias-fantastic-freshwater-fauna-and-where-to-find-them/*. Retrieved 02 09, 2024, from blog.nature.org: https://blog.nature.org/2022/04/26/indias-fantastic-freshwater-fauna-and-where-to-find-them/
2. Kumar, V., Sharma, Y., & M, M. (2011, feb 1). *Researchgate.net*. Retrieved feb 6, 2024, from https://www.researchgate.net/publication/270959140_Water_An_Essential_Nutrient_For_Life_Aesthetic_Quality_Of_Drinking_Water_Appearance_Taste_And_Odors: https://www.researchgate.net/publication/270959140_Water_An_Essential_Nutrient_For_Life_Aesthetic_Quality_Of_Drinking_Water_Appearance_Taste_And_Odors
3. Nalezny, J. (2022, october 25). *wikihow.com/How to look after pet crab*. Retrieved jan 17, 2024, from https://www.wikihow.com/Look-After-Pet-Crabs: https://www.wikihow.com/Look-After-Pet-Crabs
4. Patil, s. k., & roy, m. k. (2012, 02 12). *https://www.researchgate.net/publication/267862557_Freshwater_Crabs*. Retrieved 01 26, 2024, from researchgate.com: https://www.researchgate.net/publication/267862557_Freshwater_Crabs