



FUTURE OF ZOOLOGY TEACHER EDUCATION IN INDIA

Mr. Peeyush Pahade¹, & Sunita. Jadhav², Ph.D.

¹Head, Department of Zoology, Haribhai. V. Desai College, 596, Budhwar peth, Pune – 2

²Associate Professor, S. P. College, Sadashiv Peth, Pune – 30



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Introduction:

Zoology is study of various aspects of Animal life. The true Zoology education in India starts only at undergraduate level. We do find specialization courses in zoology at undergraduate level. Lesser than 10% of science undergraduates opt zoology as a special subject. The opportunities for postgraduate education in zoology is lesser than 1%. In spite of the huge potential the subject has, the subject is not able to attract students in good numbers in almost all the parts of India. The huge potential of the subject lies in its biodiversity, agricultural zoology, medical zoology, pharmacy related aspects of zoology, toxicology. Subject also has its openings in animal – plant relationships, in nature biology, hobbies such as trekking, in fisheries especially inland fisheries, ecosystem studies and many more aspects. The reason for not being able to attract the students lies in inability to create openings for the subject, inability to create jobs and entrepreneurship related to subject, inability to create avenues for an interesting careers. The problem of the limited expanse is primarily related to two aspects: Syllabus and teacher. The syllabus is not connected to the needs of the student and its environment while teacher is not connected to the changing nature of the subject. It has led to the loss of the subject and loss of the student careers. Sticking of the teachers to classical content or modern aspects in totality have led to suffering of the subject. New rules of animal related issues has also caused more harm to the interest in the subjects.

The Present scenario:

Zoology teaching in undergraduate colleges is done by a post graduate with or without NET/SET qualifying examination. The teacher could be M.Phil.OrPh.D. in the subject. At no stage the zoology teacher is taught how to teach zoology. He either learns by mistakes or creates mistaken zoology in the next generation. The orientations and the refresher courses that are for three weeks teach zoology which is not relevant to his teaching. In most universities there is a rift between the undergraduate and post graduate teaching as a result the students are not in tune with the educational methodology and the subjects. The methodology of examinations with credit systems is affecting the subject as the student restricts himself to the credit based course and not to the depth of the subject. At undergraduate levels the semesters complete fast as a result though learning is yearlong the teaching and interaction span of the teaches

has reduced. The present picture therefore is the master's student is restricted to a small sphere of knowledge and is unable to cater as a teacher for undergraduate teaching.

The senior college teacher is not taught how to teach at the entry level. It is surprising in science that there is science education and methodology of teaching at school, junior college but there is no teaching methodology at the entry level. The age difference between the teacher who has started the career as a teacher and his taught is not more than five years. Dealing with students who are eighteen years and above need skills and knowledge. The new teacher is not taught the skills and knowledge is to his abilities. As the teacher gets experience he masters what to teach in terms of content, additional reading is rarely recommended. Teachers notes become a tool to control class and for students to pass. Text books in the curriculum are not published by the universities and often are substandard. Plagiarism is rampant in the books, figures that make the heart of zoology are technically incorrect causing loss to the subject.

Teacher therefore needs to be empowered with proper knowledge, good teaching skills and skills that promote the subject. Innovation of the teacher nearly has no scope in today's system.

Tomorrow's teacher education:

I hope for a better tomorrow. Presently a few students at least in the urban areas who opt for zoology go out for treks, some of them are associated with naturalists. Some private organizations cater to certain biodiversity courses that are region wise. These days' special workshops are conducted for students on modern techniques used in Zoology. The initiative by today's student is the brick work for tomorrow's teachers. Colleges give courses in soft skills. These help the students to organize themselves. These skills are being used by the students today. The younger generations are always technology friendly, with technology at finger tips today's information would be tomorrow's knowledge.

The changing teaching methodologies and the credit systems will slowly bring courses that are autonomous. They will be useful for that region. Fore.g. biodiversity of Pune district would be a unique course for future students from Pune. Slow and sure participation of at least a few students today in workshops and seminars of state, national and international level will promote new teachers with known importance of research and methodologies.

Use of internet, freedom to choose the subjects, independent study mechanisms due to credit systems at undergraduate level will actually empower the new teacher. The classical zoology has systematics as its component. It includes describing and naming the species, preparation and use of concept maps in classification of animals, today we are restricted to plain classification, some other classifications are genetic classifications where we conclude the similarity of the genetic makeup or differences within the groups. The newer methodologies I presume would be an integration of phenotypic, genotypic and geographical data to make it fool proof. Photographic record even today is helping researchers to share the information, new teacher would be able to create apps for understanding zoology better.

Problems of tomorrow's teacher:

A divided class. Student availability is becoming a difficult aspect in classes. This would affect to connect in education. The students would face a problem of understanding the difference between knowledge and information. Reliability of the information from the books is a genuine problem. The greatest problem that would still persist would be the

diverse student background making teaching still a difficult task. Creation of genuine self-help groups would be a difficult task.

With the ban on dissections, a major skill set would be lost from the teacher. It is a serious concern. Today as the government has banned the dissection the clarity of understanding of the subject has been seriously affected. Increasing population, changing life style, heavy demands from the society would affect our biodiversity, which again is a challenge for the teachers of future. The skill component in today's syllabus is missing. This will affect tomorrow's teacher.

Though the present opinions end on a positive note, the politico –socio- economic picture also needs to be watched and its impact on the subject needs to be understood in a true sense to say that tomorrow's picture for a future zoology teacher is bright.

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