

ANIMAL TAXONOMY, SYSTEMATICS AND BIostatISTICS

CONTENTS

<i>Chapter</i>	<i>Pages</i>
1. Introduction Definition of Taxonomy, Stages in Taxonomy Significance of Taxonomy, Period of Taxonomy Aims and tasks of Taxonomy, Taxonomy as a Profession	1-12
2. Taxonomy and Systematics Introduction, Kinds of Systematics, Linnaean Era Post-Linnaean Taxonomy, Theories of biological classification, Taxonomy categories, Significance of Taxonomy, Applications of Taxonomy, Dimensions of Specification, Mode of Specification, Concept of Species, Subspecies and other infra-specific categories, Type of Species,	13-41
3. Taxonomy Characters and Keys Taxonomy Character, Isolating Mechanisms Taxonomy procedure, Preservatives and Fixatives Taxonomy keys	42-56
4. Zoological Nomenclature and Identification International code for Zoological Nomenclature (ICZN), Principles, Application and Rules, Reasons for the changes of name, Taxonomy and Nomenclature synonyms, Significance of synonyms, Principles of Typification	57-68
5. Evolutionary Character of Classification Characters Ancestral vs Derived, Homology and Analogy, Parallelism and Convergence, Monophyla Polyphyla, Paraphyla, Phylogenies, Rooted tree Unrooted tree, Phenogram	69-83
6. Preliminary Concept of Biostatistics	84-120

Introduction, Development of Biostatistics Role of Biostatistics, Definition of Statistics Characteristics of Statistics, Uses of Biostatistics Data and data types, Sampling and its methods Merits and demerits of sampling, Array, Type of Classification, Method of Presentation of Statistical Data, Tabulation and its types Frequency distribution, Graphical representation of data	
7. Central Tendency	121-135
Mathematical average, Average of position (Median, Mode), Relationship between Mean, Median and Mode, Measures of Partition values	
8. Measures of Dispersion	136-152
Definition, Measures of Variability, Measures of Variation (Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance), Coefficient Variation, Standard Error, Test of Significance	
9. F-Test and Analysis of Variance	153-166
F-Test, Analysis of Variance (ANOVA), Type of Analysis of Variance,	
10. Statistical Inference	167-182
Hypothesis, Type of Hypothesis, Testing of Hypothesis Procedure of testing Hypothesis, The relationship between Hypothesis testing and Confidence interval Estimation, Large samples tests	
11. Students' T-Test	183-199
Properties of distribution, Computation of test Statistics Paired t-test for difference of means	
12. Chi-Square Test	200-208
Introduction, Degree of freedom, Distribution	
13. Practical	209-256
Selected references	257-258