

LIST OF FIGURES

Figure 2.1	Maximum and Minimum Temperature during the year 2004 and 2005	13
Figure 2.2	Humidity (%) during the year 2004 and 2005	13
Figure 2.3	Location Map of Vadodara	14
Figure 2.4	Study Area (Vadodara district)	14
Figure 2.5	Land use pattern of Vadodara city	15
Figure 4.1	Male <i>Hoplobatrachus tigerinus</i>	60
Figure 4.2	Male <i>Hoplobatrachus tigerinus</i> during breeding season	60
Figure 4.3	Juvenile <i>Hoplobatrachus tigerinus</i>	60
Figure 4.4	Adult <i>Euphlyctis cyanophlyctis</i>	60
Figure 4.5	Male <i>Fejervarya limnocharis</i>	61
Figure 4.6	Adult <i>Bufo stomaticus</i>	61
Figure 4.7	Juvenile <i>Bufo stomaticus</i>	61
Figure 4.8	Adult <i>Duttaphyrnus melanostictus</i>	61
Figure 4.9	Adult <i>Microhyla ornata</i>	62
Figure 4.10	Adult <i>Uperodon systoma</i>	62
Figure 4.11	Adult <i>Kaloula pulchra</i>	62
Figure 4.12	Adult <i>Polypedates maculatus</i>	62
Figure 5.1	Rainfall and breeding seasonality of <i>B. stomaticus</i> and <i>M. ornata</i> in the study sites during the year 2004 and 2005	90
Figure 5.2	Growth curve of tadpoles of <i>B. stomaticus</i> and <i>M. ornata</i>	91
Figure 5.3	Water bodies used by the tadpoles during the study period	92
Figure 5.4	Cluster analysis of water bodies at both the site during the study period examining the similarity of their tadpole density and habitat variable	92
Figure 5.5	Schematization of the land marks used for morphometric measurements	93
Figure 5.6	Adult <i>M. ornata</i>	94
Figure 5.7	Amplexing pair of <i>B. stomaticus</i>	94
Figure 5.8	Breeding site of <i>M. ornata</i>	94
Figure 5.9	Breeding site of <i>B. stomaticus</i>	94
Figure 5.10	Egg mass of <i>B. stomaticus</i>	95
Figure 5.11	Single string of eggs of <i>B. stomaticus</i>	95
Figure 5.12	Egg mass of <i>M. ornata</i>	95
Figure 5.13	Single egg of <i>M. ornata</i>	95
Figure 5.14	Oral disc of <i>B. stomaticus</i> tadpole at Gosner stage-37	96

LIST OF FIGURES

Figure 5.15	Scanning electron micrograph of oral disc of <i>B. stomaticus</i> tadpole	96
Figure 5.16	Scanning electron micrograph showing the beak of <i>B. stomaticus</i> tadpole	96
Figure 5.17	Scanning electron micrograph showing the serration in the beak of <i>B. stomaticus</i> tadpole	96
Figure 5.18	Scanning electron micrograph showing lower beak of <i>B. stomaticus</i> tadpole	97
Figure 5.19	Scanning electron micrograph of larval <i>B. stomaticus</i> teeth showing cusps in the upper jaw	97
Figure 5.20	Scanning electron micrograph of larval <i>B. stomaticus</i> teeth in the lower jaw	97
Figure 5.21	Scanning electron micrograph showing the oral disc of <i>M. ornata</i> tadpole at gosner stage 37	97
Figure 5.22	Tadpole of <i>B. stomaticus</i> at Gosner stage-21	98
Figure 5.23	Tadpole of <i>B. stomaticus</i> at Gosner stage-37	98
Figure 5.24	Tadpole of <i>B. stomaticus</i> at Gosner stage-44	98
Figure 5.25	Froglet of <i>B. stomaticus</i> showing red spots	98
Figure 5.26	Developing eggs of <i>M. ornata</i>	99
Figure 5.27	Tadpoles of <i>M. ornata</i> at gosner stage-30	99
Figure 5.28	<i>M. ornata</i> tadpoles at Gosner stage-42	99
Figure 5.29	Froglet of <i>M. ornata</i>	99
Figure 5.30	High density of <i>B. stomaticus</i> tadpole in the water body	100
Figure 5.31	Tadpoles of <i>B. stomaticus</i> feeding on carrion	100
Figure 6.1	Heavy metal content ($\mu\text{g g}^{-1}$ dry weight) in the liver and kidney of <i>Euphlyctis cyanophlyctis</i> as well as in the water bodies	122
Figure 6.2	Eutrophication at Pond A	123
Figure 6.3	Eutrophication at Pond B	124
Figure 6.4	Extensive eutrophication at Pond C	125
Figure 6.5	Extensive eutrophication at Pond D	126
Figure 6.6	Eutrophication at Pond E	127
Figure 6.7	Less eutrophication at Pond F	128
Figure 6.8	Extensive eutrophication at Pond G	129
Figure 6.9	Eutrophication at Pond H	130
Figure 6.10	Eutrophication at Pond I	131
Figure 6.11	Heavy eutrophication at Danteshwar small pond (Pond B)	132
Figure 6.12	Heavy eutrophication at Danteshwar big pond (Pond C)	132
Figure 6.13	Heavy eutrophication at Harni main pond (Pond D)	132

LIST OF FIGURES

Figure 6.14	Heavy eutrophication at Harni temple pond (Pond E)	132
Figure 6.15	Heavy eutrophication at Lalbaug pond (Pond G)	133
Figure 6.16	Heavy eutrophication at Kashivishwnath pond (Pond H)	133
Figure 6.17	Histological skin section of <i>Duttaphrynus melanostictus</i>	134
Figure 6.18	Histological skin section of <i>Bufo stomaticus</i>	134
Figure 6.19	Histological skin section of <i>Hoplobatrachus tigerinus</i>	134
Figure 6.20	Histological skin section of <i>Euphlyctis cyanophlyctis</i>	134
Figure 6.21	Histological skin section of <i>Fejervarya limnocharis</i>	135
Figure 6.22	Histological skin section of <i>Polypedates maculates</i>	135
Figure 6.23	Histological skin section of <i>Uperodon systoma</i>	135
Figure 6.24	Section region of skin from a <i>Mixophyes fasciolatus</i> with mostly empty sporangia present. Note empty collapsing sporangium and one containing bacteria (B). One sporangium is divided by an internal septum (S), (Berger <i>et al.</i> , 1999).	135