Appendix 2

Stocking of different sizes of fish (larvae, juvenile, recruits) with stocking density dependent on angler satisfaction.

Figure A2.1: a) Stocking density and b) yields for stocking of different size of fish when stocking density is determined by angler satisfaction with varying forgetting rates lambda (low lambda equals a high memory of past experiences, high lambda represent high forgetting). When memories of past experiences the request for stocking and hence stocking densities are high, leading to higher yields. Stocking density is highest when stocking larvae.

A2.2: Effects of stocking different sizes of stocked fish at densities that are determined by angler satisfaction with different forgetting rates lambda. A) stocking of larvae, b) stocking of juveniles, c) stocking of recruits. When stocking larvae no replacement takes place no matter how high the memory of anglers of past experiences. When stocking juveniles replacement can take place when anglers remember well past experience, i.e. forgetting is low. In this scenario replacement of wild fish by hatchery origin or stocked fish happens already at intermediate forgetting rates. When recruited fish are stocked replacement happens only when forgetting rates are very low.