A study was carried out to determine the euryhalinity and the effect of salinity changes on the drinking of tilapia, *Oreochromis andersoni*. Drinking rate of the fish in fresh water, and at 50%, 75% and 100% sea water was determined. *O. andersoni* acclimated to sea water without mortality and fish acclimated to sea water survived direct transfer back to fresh water. Drinking rate increased significantly (p<0.05) after the salinity was at least 75% sea water. It was concluded that *O. andersoni* is euryhaline and that its drinking rate increases with salinity upto a maximum at 75% sea water and thereafter remains significantly higher at full strength sea water. It may, therefore, be possible to culture the fish in environments of wide salinity ranges.