Compensation The significant increase in fish production after 1972 (Figure 2c) is explained by an increase in the supply of nutrients at the base of the trophic web associated with changes in ocean circulation (Steele et al., 2007).This requirement is rarely considered explicitly because biomass or number, rather than food intake, is the usual unit of measurement (Houlahan et al., 2007), and "community" is not defined quantitatively in terms of food types. In a review of terrestrial and aquatic studies based on community structure rather than productivity, Houlahan et al. (2007) concluded that "compensatory dynamics are rare in natural ecological commu- nities".Repeating the calculations for the three decades 1973–2002 and using 3-year running averages for each species, the variance ratios for benthivores, planktivores, and piscivores are near or greater than 1, providing no evidence of compensation within the guilds, rather the reverse (Table 2).If total fish production is limited by the food available to fish, then changes in fish species composition should be such that increases in some species are balanced by decreases in others, and the theoretical intake of plankton plus benthos varies less than the intake by individual fish species.For there to be compensation, the variance of the total intake should be less than the sum of the species variances, and the system has to be close to a stable state, i.e. Variance Ratio1/4Var(total intake)/SVar(species intake), 1 (Schluter, 1984).It is only when the food requirements of all 35 fish species are con- sidered simultaneously that compensation is indicated by a var- iance ratio substantially ,1 (Table 2).This result is statistically significant (p?0.05) using .Duplisea and Blanchard's (2005) Monte Carlo analysis