Table: Comparison of methods for estimating bycatch limits

Approach	Pros	Cons
Percentage of abundance	• Easy to assess – compared to maximum net productivity rate if known (and should be less than the maximum net productivity rate)	• Harbour porpoise"1.7% of best population estimate" assumes a single stock with more or less independent dynamics - assumed a maximum annual rate of increase of 4%, and did not incorporate any biological information on the species • Does not incorporate uncertainty in estimates of population size or bycatch • Does not include natural mortality
US Potential Biological Removal (PBR) level	• Incorporates uncertainty in estimates of population size • Incorporates a recovery factor (if unknown status, a recovery factor of 0.5 is used) • *Safe by-catch limits can be calculated for multiple MUs for a species???*	• Uses only a single current value of absolute population size; though in a new model-based approach N_{min} is based on estimates of abundance from all previous surveys • Does not incorporate estimates of bycatch • Does not include natural mortality
Bycatch Limit Algorithm (BLA) approach*	• Incorporates estimates of population size and bycatch • Incorporates uncertainty in estimates of population size and bycatch • Estimates relative population level (depletion) and allows implementation of a "protection level" below which limits to removals can be set to zero. This can shorten recovery time to target population levels. • More conservative than PBR • Safe by-catch limits can be calculated for multiple MUs for a species	• If a time series of data on population size are unavailable, it performs similar to the PBR • Does not include natural mortality