IMPLICATIONS OF A NEW SURVEY ESTIMATE OF THE SIZE OF THE WEST COAST ROCK LOBSTER RECREATIONAL CATCH

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Apparently arguments have been advanced that the difference between the present recreational allowance from the TAC for west coast rock lobster and an estimate of the recreational take from, say, a recent telephone survey constitutes a "saving" that can be allocated to others without compromising the long-term sustainable use of the resource that is intended by the implementation of overall annual TACs output by the OMP adopted for the fishery.

Though attractively simple, this argument is in fact **NOT** correct, and it is important that the reasons why this is so are understood.

The quantities for past recreational catches that are used in calculations of the quantity of rock lobster that can be taken sustainably are of a different nature to the data used for the commercial catches. Whereas the latter are measured directly, recreational catch levels can only be inferred under certain assumptions, and are much less accurately known. When the OMP indicates a change, say a reduction, is needed, in terms of the existing agreed rules, to the allocation from the overall TAC to recreational fishers, this is not achieved by direct catch limitations on these fishers (which would be impractical to enforce). Rather it is effected by changing the duration of the season to an extent estimated to achieve the proportional change in their catch that is sought.

Consider a hypothetical example: say the past annual recreational catch had been taken to be 300 tons every year, and the overall TAC calculated under this assumption is 3000 tons, of which 2700 tons is allocated to commercial users. Then let us assume that a detailed survey of recreational fishers is carried out, and reveals that their catch has in fact been 150 tons every year, not the 300 tons assumed – i.e. a "saving" of 150 tons. Does this mean that the 150 tons "saved" can be added to the commercial fishers allocation without compromising long-term sustainable use of the resource? The answer is: **NO**. The reason is that if the calculations of the overall sustainable catch level were carried out with the corrected values of past recreational catch (down by 150 tons each year), the resultant TAC would no longer be 3000 tons, but very close to 2850 tons. This is because if past catches were lower than previously thought, it means that the resource is less productive than previous calculations indicated. The true "saving" achieved for re-allocation to the commercial fishers would in fact be virtually zero.

Table 1 details the time series of past recreational catches that are used at present when calculating levels of long-term sustainable yield for the west coast rock lobster resource. Note that for many of the years concerned, the value shown is purely an assumption without even an associated survey that year. Though the situation is not as simple as in the example given above, in broad terms the implications are the same. Say a telephone survey was to indicate that the 2007 recreational catch was 157 tons instead of the 257 tons indicated in the Table. This does **NOT** mean that there is therefore 100 tons of TAC "saving" available for re-allocation. The actual "saving" is not necessarily exactly zero – careful further analysis would then be needed to calculate this – but it is likely to be appreciably less than to the "apparent saving" of 100 tons.

A key reason that inferences about a "saving" are not straightforward in this situation is that such a reduction in the estimate of recreational catch for 2007 would necessarily mean that the crude estimates for preceding years from 2001 (at least) would have to be revised downward as well (unless there was independent evidence of a marked decrease in recreational effort over this period). This in turn would lead to a lower estimate of recent resource productivity and hence lower overall TACs. Furthermore, although a current telephone survey would give an absolute estimate of catch, in the same way as the surveys a decade back in time, for many reasons such a new survey would not be exactly comparable to previous exercises, so that appropriate adjustments for differences would need to be developed.

The bottom line is that should a direct estimate of the recent level of recreational take become available, and this is found to be less than the portion of the TAC allocated to recreationals, that would **NOT** mean that the difference between these two numbers can be automatically allocated to others without compromising sustainability. If such action is to be considered, the matter needs to be referred back to the SWG to undertake an analysis to determine the size of such an amount (which will likely be appreciably less than the difference between the past assumed and newly estimated level of recreational catch).

Table 1: Estimates of annual recreational catch used in assessment of sustainable level of catch from the west coast rock lobster resource. Note that 1992 refers to the 1992/3 season. It is assumed that the recreational catch increased linearly from zero in 1959 to the level shown for 1992,

Season	**Recreational Catch (MT)**	**Source**
1992	469	Telephone survey
1993	391	Telephone survey
1994	336	Telephone survey
1995	379	Telephone survey
1996	496	Telephone survey
1997	340	Telephone survey
1998	249	Telephone survey
1999	360	Average 1994-1998 values
2000	404	Telephone survey
2001	468	Assumed 20% of OMP TAC calc^{n}
2002	583	Assumed 20% of OMP TAC calc^{n}
2003	320	Assumed*
2004	320	Assumed
2005	320	Assumed
2006	300	*Ad hoc* assumption by management
2007	257	Decr to 10% of TAC per OMP rule

* This seems linked to the comment in the 2004 TAC recommendation document that: “Despite the fact that recreational fishing days were reduced by 43% in 2000/2001, the recreational sector is consistently landing around 320 tons per season.”