

2014=3.70
 2015=3.23
 2016=3.13
 2017=2.79
 2018=2.22

North:

2008=1.00
 2009=1.54
 2010=1.30
 2011=1.16
 2012=0.56
 2013=0.51
 2014=0.55
 2015=0.55
 2016=0.41
 2017=0.24
 2018=0.22

Figure 1 (taken from FISHERIES/2018/AUG/SWG/WCRL/14) shows the final estimates of trends in poaching from the DAFF compliance data for both the North (A3-7) and South (A8+). The TT proposes use of the 3-pt smoothed trend summaries of those estimates which are shown by the green dashed lines in Figure 1.

C) TREND: Relative to 2000=1 for “TRAFFIC” scenario

Pre-1985	0.67 in 1985 decreasing linearly to zero in 1950
1985 – 2001	0.67 (in 1985) → 1.0 (in 2001)
2001 – 2018	as reflected by the estimates of poaching from the TRAFFIC analysis (REF to come).

Figure 2a shows the 2001-2018 values estimated in these TRAFFIC analyses. Figure 2b shows values obtained applying a 3-pt averaging assuming either the method used for compliance data ($VALUE_y = \frac{1}{3}(X_{y-1} + X_y + X_{y+1})$) or assuming a time delay ($VALUE_y = \frac{1}{3}(X_y + X_{y+1} + X_{y+2})$). Where not all values are available (at the start and end of series) these averages are taken over only the data which are available.

D) TREND: 2019+

The default assumption is that the 2019+ values are the same as for 2018 [*same approach as for 2018*]

E) ABSOLUTE VALUES

The TRAFFIC data provide absolute estimates of poaching for the 2001-2018 period. Two methods of 3-pt averaging are used to provide two different series of poaching estimates for

the 2001-2018 period as explained in C) above and shown in Figure 2b. Knowledge of the 2001 value allows for back extrapolation to earlier years based on the trend assumptions in C) above.

For the “Compliance” scenario, the relative values in B) above are converted into absolute values by calibrating such that the average tonnage for the “Compliance” scenario over the 2008-2018 period is the same as that for the “TRAFFIC” scenario.

SUMMARY AND PROPOSALS

Figure 3a shows the updated poaching trends for the “Compliance” scenario for the two options of smoothing of the TRAFFIC data and Figure 2b shows updated poaching trends for the “TRAFFIC” scenario for these two smoothing options..

Figure 3c compares the total poaching estimates for the two TRAFFIC smoothing scenarios.

Figure 4 shows poaching trends for the resource as a whole assuming a 75%:25% weighting between the “Compliance” and “TRAFFIC” scenarios. The BC poaching trend assumed for previous (2018) assessments and projections is also shown.

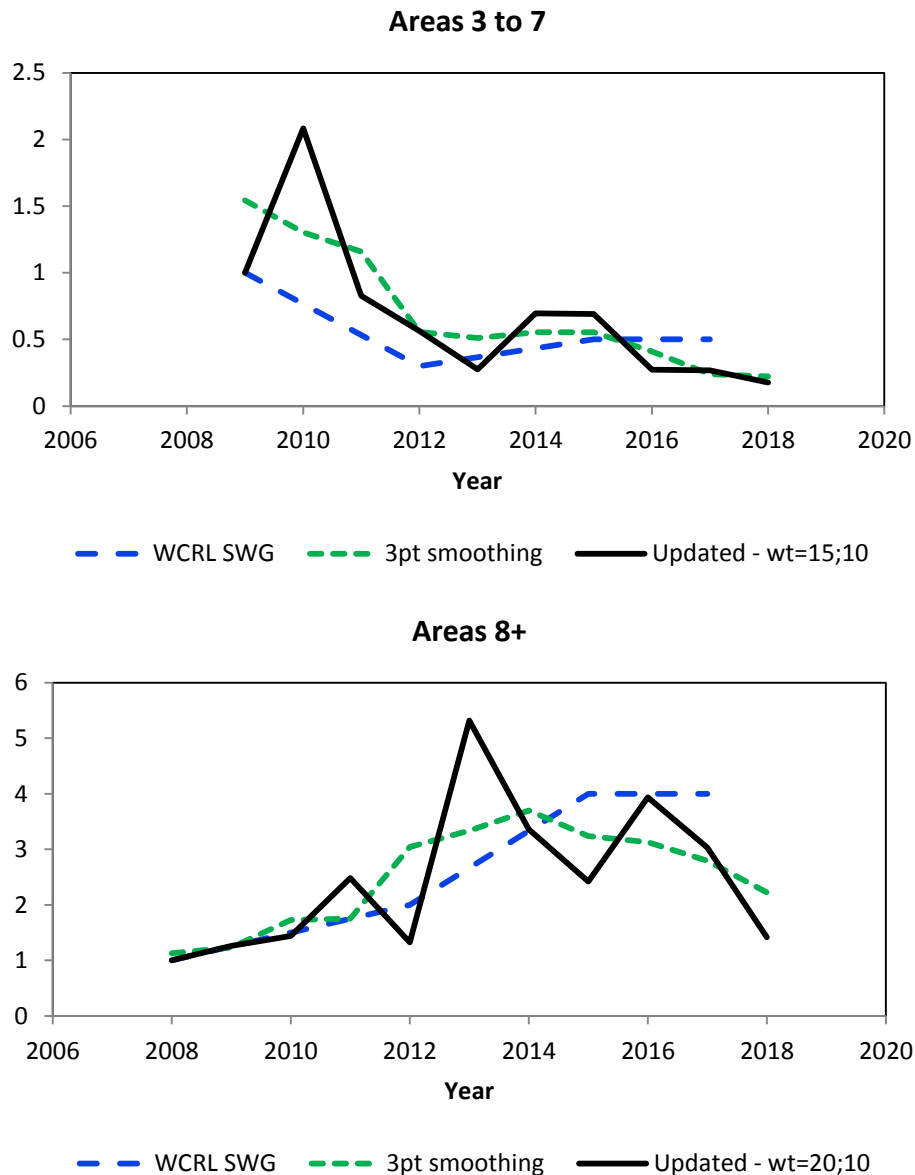


Figure 1. Poaching trends obtained from DAFF compliance data using three different approaches:

- modelling of the combined “old” and “new” databases with the “old” database weighted by some factor – the approach now recommended,
- the WCRL SWG agreements on a simple characterisation of the poaching trends as assumed for the 2016 assessment (“WCRL SWG”), and
- applying three-point smoothing to the poaching indices from the first approach.

The plots described above are given for **Super-areas 3+4+5+6+7 (top)** and **Super-area 8+ (bottom)**. Results shown are normalised to 2008=1 for Super-area 8+ or to 2009=1 for Super-areas 3+4+5+6+7 as assumed for that previous assessment and projections, for the first two approaches, but not the third.

Figure 2a: Estimates of poached lobster obtained from TRAFFIC import-export data analyses.

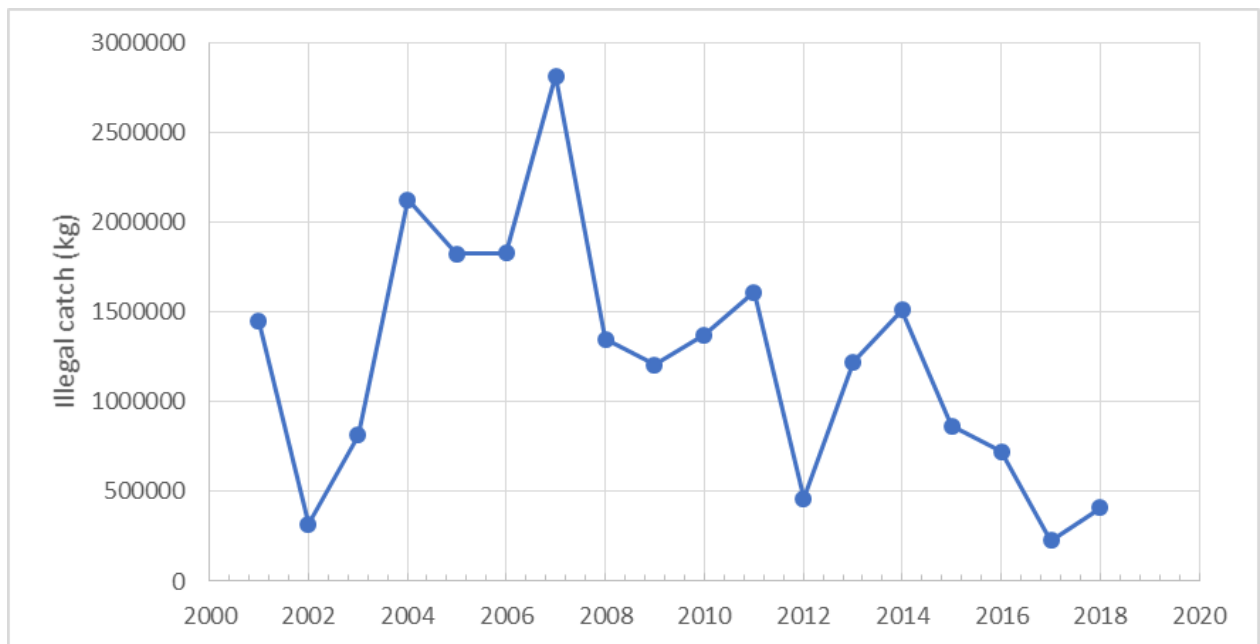


Figure 2b: 3-pt smoothing options for the TRAFFIC estimates of poaching.

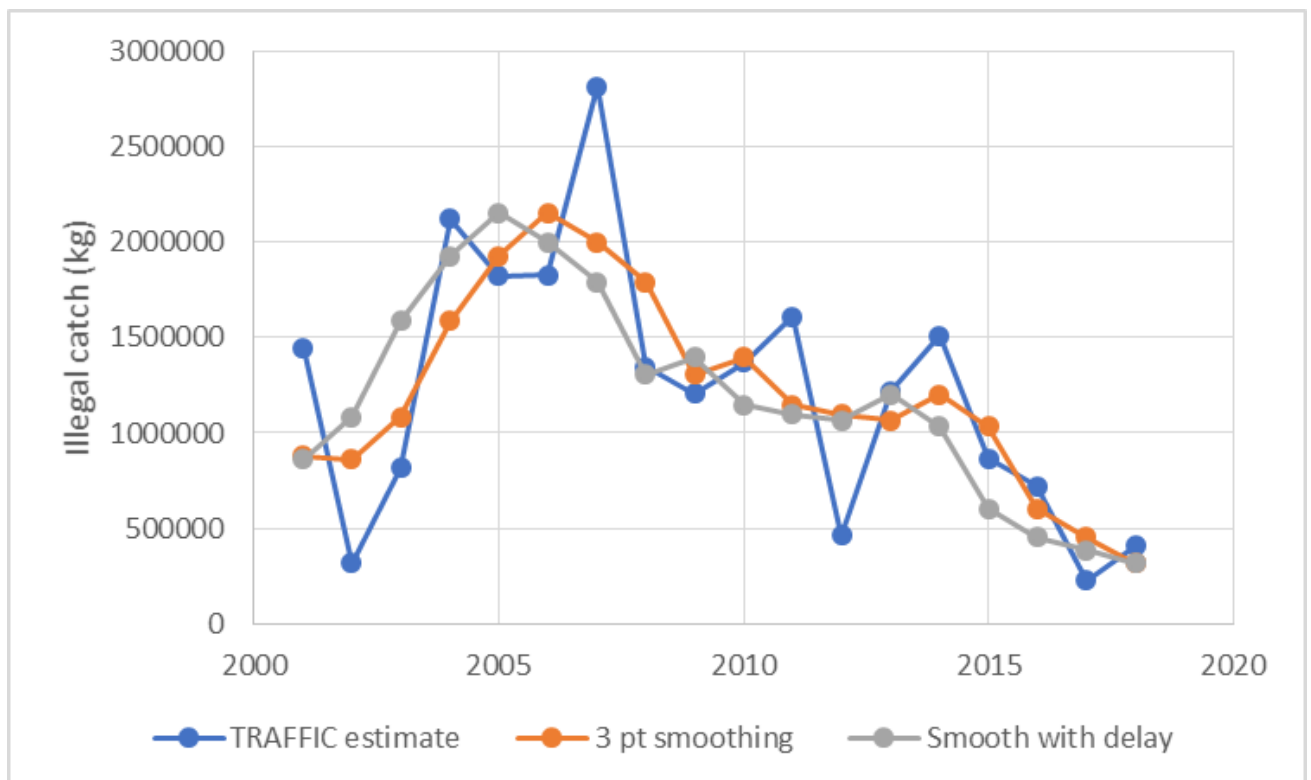


Figure 3a: Updated poaching trends for the “Compliance” scenario for the two options for smoothing of the TRAFFIC data.

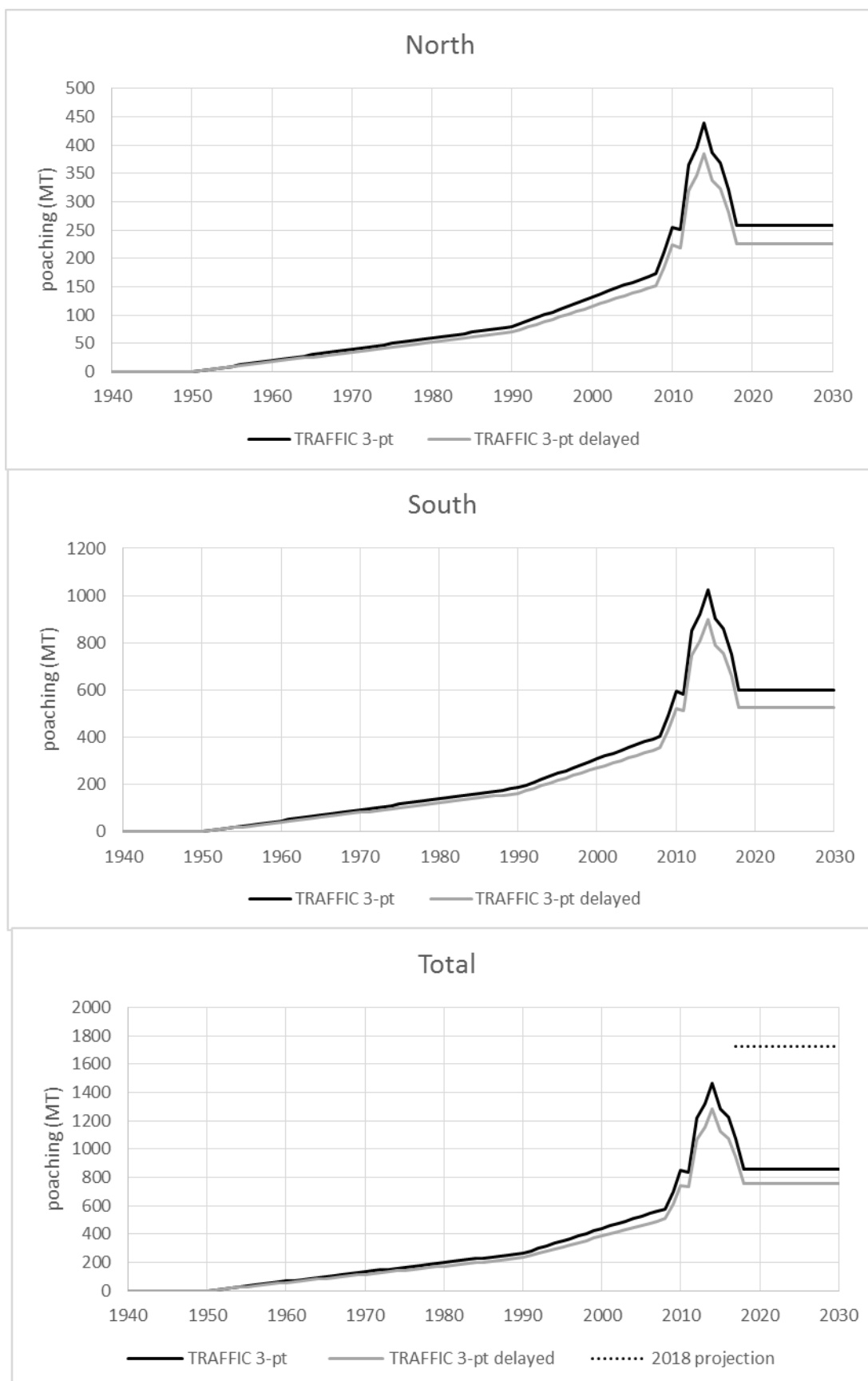


Figure 3b: Updated poaching trends for the “TRAFFIC” scenario for the two options for smoothing of the TRAFFIC data.

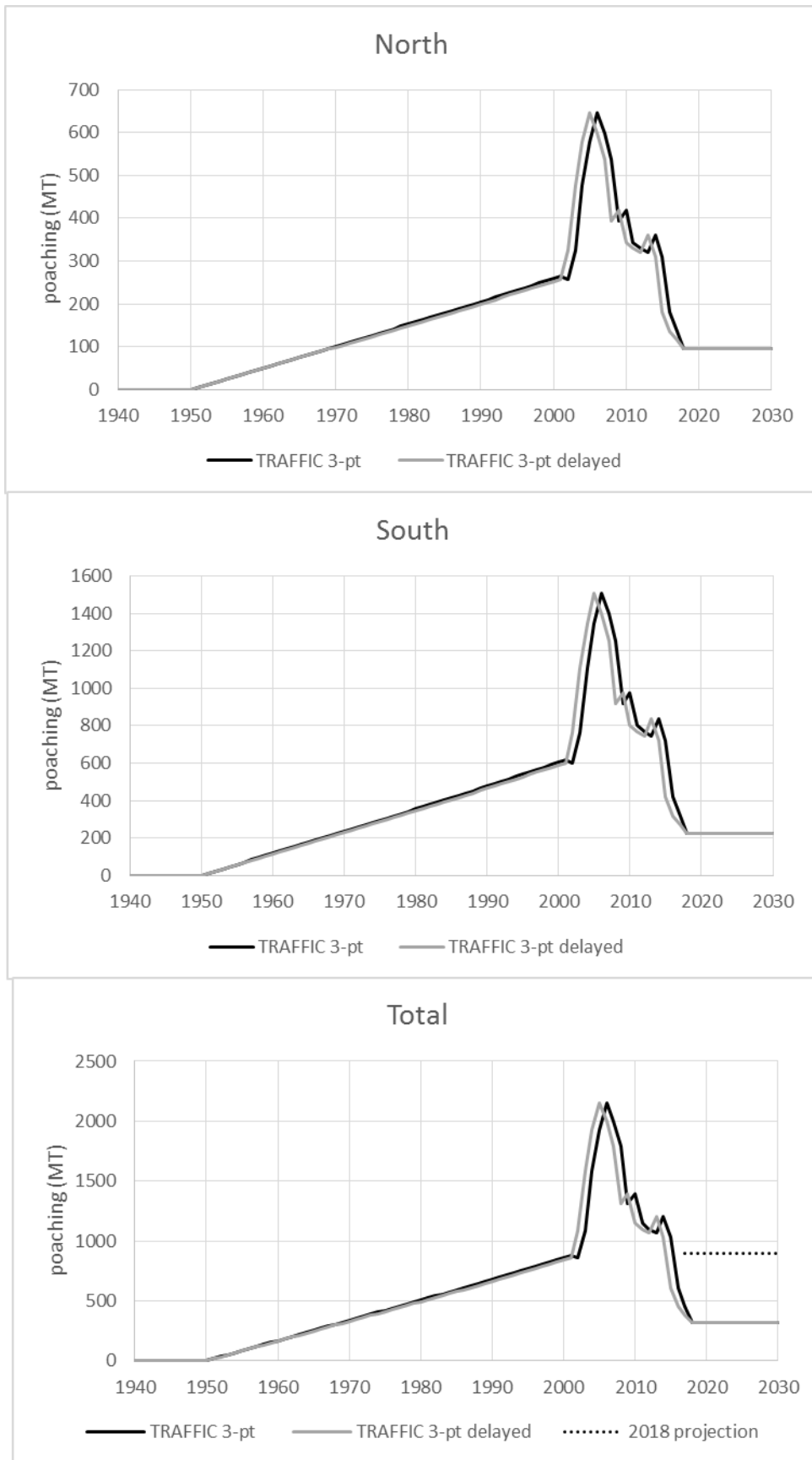


Figure 3c: Comparison of the total poaching estimates for the two TRAFFIC data smoothing options.

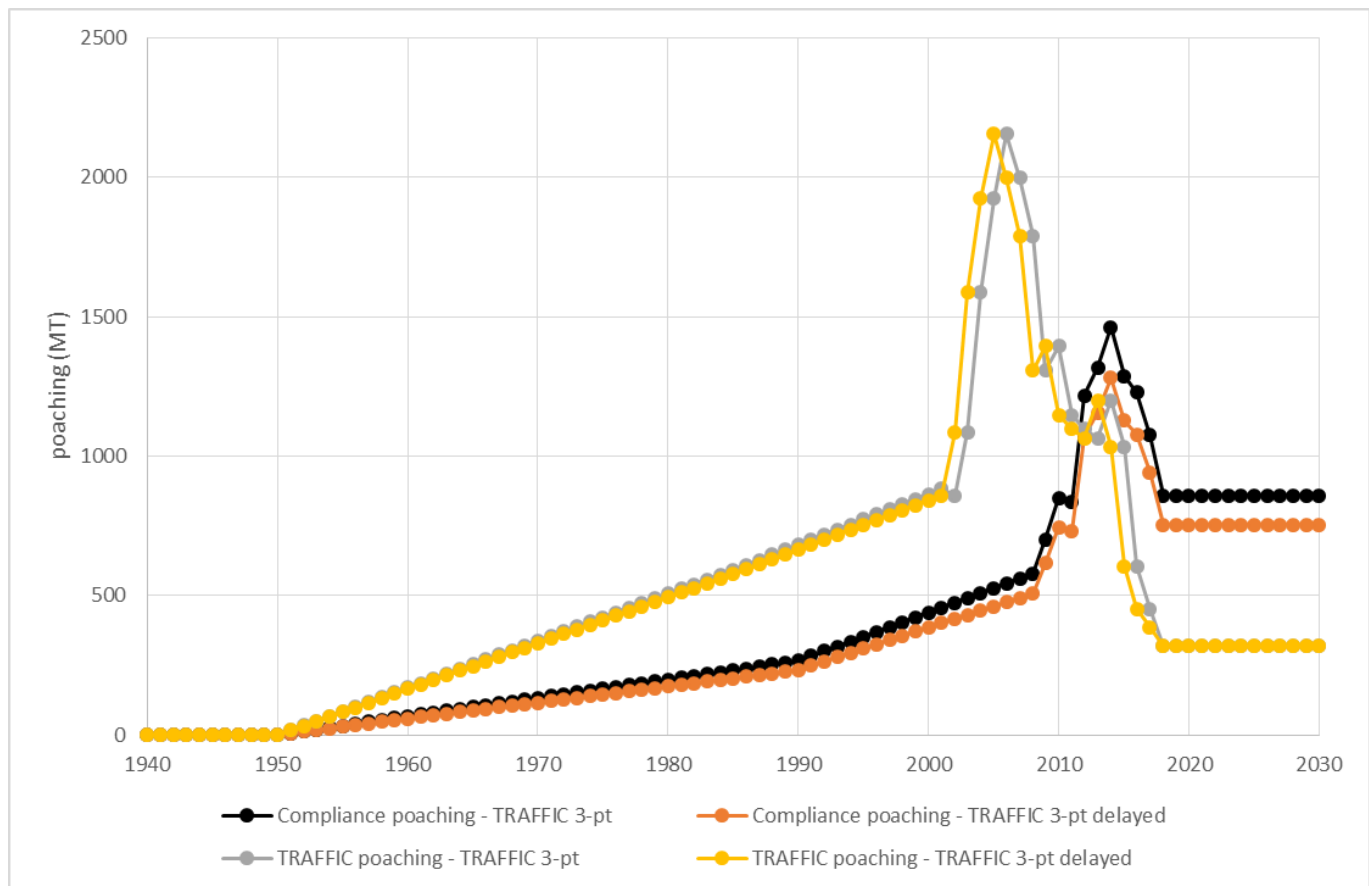


Figure 4: Poaching trends for the resource as a whole assuming a 75%:25% weighting between the “Compliance” and “TRAFFIC” scenarios. The BC poaching trend assumed for the previous (2018) assessments and projections is also shown.

