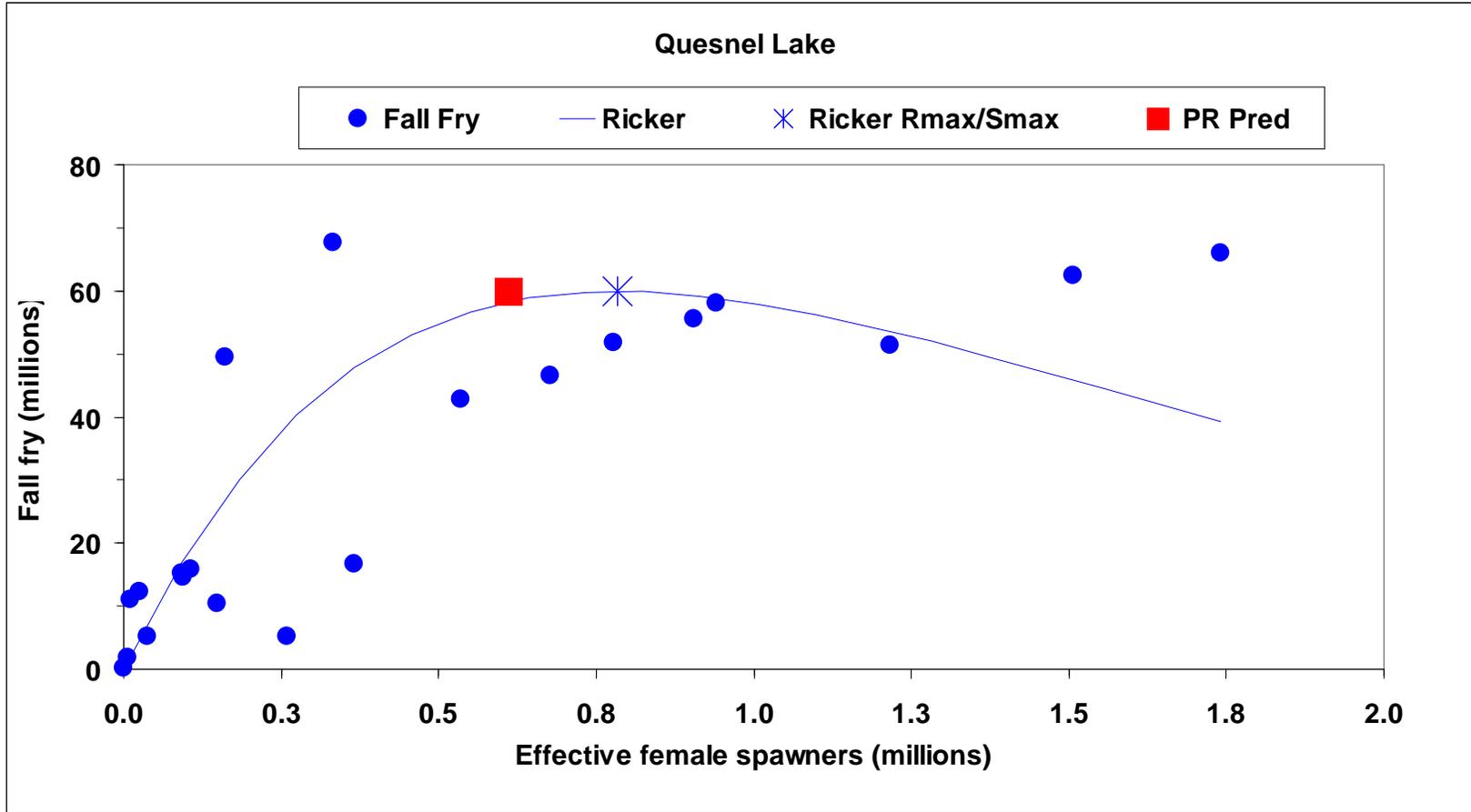
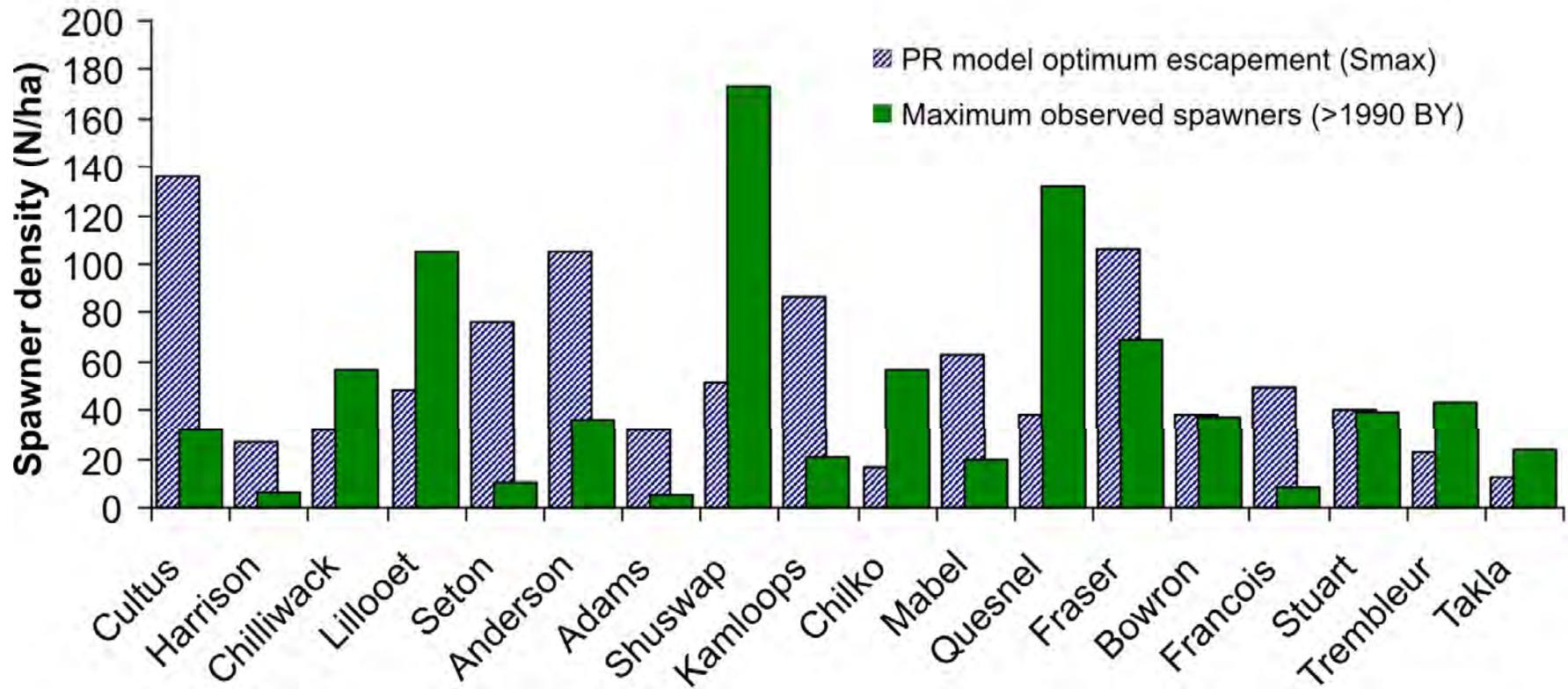


Examples of the results produced by DFO's Lakes Research Program. In the first figure estimates of juvenile sockeye in the Fall of the year were made by hydroacoustic and trawl surveys (blue circles) and are plotted against the effective female escapement of the parental generation. A Ricker model has been fitted to the data and the point where the estimated maximum production occurs is shown by the asterisk. The limnology component of the LRP has developed a model that uses the measured Photosynthetic Rate (PR) to estimate maximum smolt biomass and abundance and the escapement (red square) required to produce the maximum.



In the second figure, the PR estimate of optimum escapement for 18 sockeye lakes is compared to observed spawner numbers in the last 20 years.

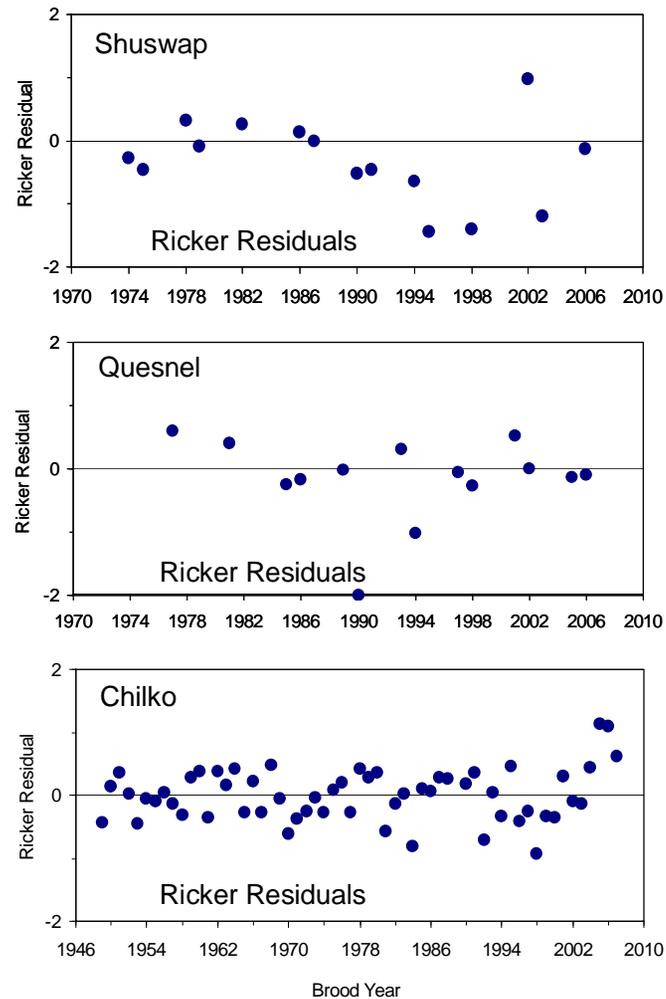
Adult Sockeye Production Relative to Optimum Capacity in Fraser Drainage Lakes



Trends in Juvenile Productivity Index

Shuswap, Quesnel, Chilko lakes

- No directional trends in Ricker juvenile productivity series
- Juvenile productivity trends not consistent across nursery lakes



Data include dominant and subdominant cycle years and not non-dominant years