



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL OCEAN SERVICE
Office of National Marine Sanctuaries-N/NMS1
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Re: Comments on new Southwick report

Dear Members of the MLPA Blue Ribbon Task Force

I have just had received and read a new report by Southwick Associates called "The Potential Economic and Conservation Impacts of Proposed Marine Recreational Fishing Closures in Southern California." Please accept these preliminary comments on that report.

Southwick generally makes the same mistakes I noted in his estimates for the Channel Island National Marine Sanctuary marine protected area network (CINMS), where he projected up to \$100 million in recreational fishing economic losses. As the late Professor Frederick Bell and Dr. Linwood Pendleton also noted in their peer review of the Southwick work (letters were sent with their review to the Executive Director of the California Fish and Game Commission), he fails to understand that economists would not include annual expenditures in analyzing management strategies or policies that only affect marginal amounts of trips. It is simply bad economics as I, Bell, and Pendleton noted.

As Dr. Justin Adams noted in his review, "Evaluating the American Sportfishing Association Economic Impact Reports on Marine Protected Areas" (where he summarized my critique of the Southwick estimates for CINMS), **a five-year pre-post monitoring of the CINMS marine reserves showed no adverse impacts on recreational fishing.**

Although lightly mentioned in the Adams critique, all ignore the two-step analysis that Peter Wiley and I employed in the CINMS. Southwick only focuses on what we call "maximum potential loss", which is simply taking all the current activity in a particular spatial area that is proposed to be closed and assuming all is lost. This is highly quantitative and therefore attracts the most attention. It was useful information in advising the Marine Reserve Working Group in the design of the marine reserve network which attempted to achieve resource protection, while minimizing socioeconomic impact. However, for assessing what might actually happen, one must consider many other factors which could mitigate or offset the potential impact. Dr. Adams mentions some of these in his discussion of the difficulty of estimating future impacts. In our Step 2 analysis, which is more qualitative since we don't have an ecological-economic model that would predict what would actually happen to both the biophysical environment and how fishermen would respond, especially over longer-time periods, we concluded that

most of the losses were not likely to actually occur. In this respect, our projections of impact seem to have been correct.

We did a more extensive analysis of the Tortugas Ecological Reserve in the Florida Keys National Marine Sanctuary which is a 151 nautical square mile no-take zone. **We did a five-year pre-post assessment and found zero impact on both the commercial and recreational fisheries.** Charter fishing operations specifically told us that the no-take zones had no affect that there were plenty of places to go fishing in the open areas. The problems they noted were restrictive grouper regulations and fuel prices and customers did not want to pay the extra costs if they could only get one grouper. So they took trips closer to port.

Thus for two of the largest no-take zones (a network of zones in the case of the CINMS), we have no to very little actual adverse impact from no-take zones. In fact, there is no literature showing any actual impacts but simply a number of studies that assume there would be impact without monitoring and testing whether the impact actually occurs.

Southwick also assumes there will be a response assuming the closures could be interpreted as a price increase and uses an analysis by ASA (I assume he did this) showing the relationship between price and quantity of fishing licenses purchased. However, in the case of Southern California from 1993 to 2000 (before CINMS closures) total marine fishing trips declined 39.6%. The decline was 37.3% for private/rental boat modes, 47.4% for charter/party boats, and 35.3% for shore modes. However, even with this large change in fishing trips, California marine fishing license sales did not change. Thus there is no support for the assumption that people will drop out of the fishery and reduce the purchase of annual expenditure items even for changes as large as this (not a marginal change).

Southwick also under-estimates the impact of non-consumptive recreation. All science to date shows that sites where fishing is prohibited change in their characteristics/attributes. The attributes that change are valued by those who engage in non-consumptive recreation. It is true we don't know how much of a response there will be without monitoring, but it may take time for the resource to change and for people to learn about the change before we see a response. We are seeing it in the Florida Keys, where non-consumptive recreation has been concentrating in our no take areas. The issue is the elasticity of demand with respect to quality parameters (attributes) and elasticity of demand would be greater with time as both the environment changes and people learn of these changes. Whether the response by those who participate in non-consumptive recreation offsets completely any losses in fishing activity resolves around how much fishing activity is actually lost (may be zero or close to zero if suitable substitute sites are found) and the elasticity of demand for non-consumptive recreation. Southwick focuses only on the short-run ratio of non-consumptive recreational spending per person per day to fishing expenditures per person per day. But again this ratio is incorrect since he is including annual expenditures, which as noted above, is simply wrong.

Since I just received a copy of the Southwick report today, time did not permit a more detailed review. But I conclude as with Southwick's previous analysis of the CINMS that he doesn't employ sound economics. The work appears to be what I call "advocacy analysis" or giving the client what they want to hear rather than applying objective scientific methods.

Sincerely,

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