

Quarterly Report: April-June 1988  
Limnological Studies at Crater Lake  
CA-9000-3-0003  
Subagreement 12

My goals were as follows:

1. Prepare in draft the 1987 annual report.
2. Prepare for a special AAAS symposium on Crater Lake limnological studies, June 21, 1988.
3. Prepare for a peer review of the Crater Lake limnological studies, June 22, 1988.
4. Complete Master's projects on zooplankton and fish.
5. Prepare for the summer field season.
6. Continue the analysis of lake data.
7. Prepare a paper of the Subalpine Watershed Processes symposium at Lake Tahoe.

The draft annual report was prepared and submitted to the peer review team in May. The peer review team has reviewed the report and will forward a formal evaluation in August. Once received, the report will be modified and published in August.

The symposium included papers on geology, hydrothermal, climate and lake levels, water quality, lake color, phytoplankton, zooplankton, and fish. The abstracts are enclosed. The symposium appeared to be successful based on comments by numerous scientists attending the session. The peer review panel attended the sessions as an introduction to present and past research activities at the lake. The review consisted of a formal presentation of special aspects of the studies not presented at the symposium, including a video presentation of the ROV study conducted last year by Jack Dymond and Bob Collier. The review panel will submit their individual reviews to me, and I

will forward them to Dr. Stanford Loeb, the panel chairman. Dr. Loeb will then prepare a summary evaluation. I expect to receive this document by the middle of August.

Ms. Elena Karnaugh completed her Masters project on the zooplankton of Crater Lake. A copy of her thesis has been submitted to the park and regional office. Mr. Mark Buktenica completed his Masters project on the fishes of Crater Lake. His thesis is being printed at this time. The work will be submitted to the regional office and park as soon as it is available.

Preparations for the summer season were initiated. Special studies this summer will include: (1) an evaluation of the lake for hydrothermal vents and other features such as the distributions of plants and bottom fauna, and geological formations, and (2) an evaluation of the bottom fauna. The monitoring program will continue as in the past and will include fish. The latter is important because we must continue to evaluate the relationships between kokanee densities and the densities of Daphnia.

Considerable time was spent working on the Secchi disk data. A paper was prepared and presented on the subject (draft copy enclosed).

Plans for next quarter include: (1) continue the monitoring program this summer, (2) begin the bottom fauna survey, (3) finish the 1987 annual report, and (4) conduct the hydrothermal survey and evaluation.