

22 January 1988

Mr. Kirk Connally  
Terra Marine Research  
& Education, Inc.  
1867 Spinnaker Drive  
Ventura, CA 93001

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DAVID H. ANDERSON

Dear Kirk:

This letter reviews research this Institute has conducted since 1980 in collaboration with or with the assistance of Terra Marine Research. I am aware that your working relationship with some members of our staff predates 1980, but I chose to begin this accounting with our first formal contractual arrangements. I hope the information will be helpful to you in your application for non-profit status.

Gray Whale

In January and February 1980, this Institute chartered the R/V Gringo as the observation vessel for a project we were contracted to conduct for the United States Minerals Management Service (through the University of Guelph, Dr. Joseph Geraci, principal investigator). The goals of the project were to assess the effects of oil, from a high-volume natural oil seep, on the behavior and migration patterns of California gray whales and to characterize details of the species' migration routes from Point Conception southwards to Santa Barbara and the northern Channel Islands. Terra Marine Research purchased a precision navigation system at its own expense and then made the Gringo available to us at nominal costs (<150/day), thereby permitting us to extend our field season to three weeks and enhancing the amount and quality of our field data. The gray whale project resulted directly in the following reports, presentations and publications:

- a. Kent, D., S. Leatherwood and L. Yohe. 1981. Responses of migrating gray whales, Eschrichtius robustus, to oil on the sea surface: Results of a field evaluation. Final report on contract P-0057621. Dept. of Pathology, University of Guelph, Guelph, Ontario. San Diego, Hubbs-Sea World Research Institute Tech. Rep. 81-131. Vol. 1 (81 pp.) and Vol. 2 (79 pp.).
- b. Stewart, B.S., S. Leatherwood, D.B. Kent and P.K. Yochem. 1986. Routes taken by gray whales migrating southward through the southern California Bight. Southern California Academy of Sciences, Annual Meeting, CSU, San Bernadino, 2-3 May 1986. Abstract.
- c. Yochem, P.K., S. Leatherwood and D.B. Kent. 1986. Gray whale (Eschrichtius robustus) calves born on the southbound migration, 1955-1985. [Southern California Bight. [Southern California Academy of Sciences, Annual Meeting, CSU, San Bernadino, 2-3 May 1986.] Abstract.
- d. Stewart, B.S., S. Leatherwood, P.K. Yochem and D.B. Kent. 1987. Routes taken by gray whales migrating southward through the southern California Bight. XII Reunion Internacional sobre Mamiferos Marinos de Mexico. 22-25 April 1987. Abstract. [Expanded from 1986 presentation].

It also has formed the basis of the most current understanding of the movement patterns of southbound gray whales through the Southern California Bight, now often quoted in other publications (eg. Leatherwood, Reeves, Perrin and Evans 1982; and Leatherwood, Stewart and Folgens 1987 - see below).

#### Killer Whale

From April through October 1984, the Institute chartered the R/V Diamaresa as the live-aboard observation platform for a project we were contracted to conduct for Sea World, Inc. The goals of the project were to locate killer (and other) whales and to use photographs and acoustic recordings to identify individual whales as the basis for a study of their population biology in southern Alaska. Because of your group's interest in the project, Terra Marine Research provided the Diamaresa to the Institute essentially at operating costs (approximately \$150 per day) and donated travel and salary costs of ship's crew. Very importantly, you also ferried the vessel to and from southeast Alaska from its home port at Ventura Harbor at no cost to our program, saving us a significant amount of money and permitting us to have a longer field study than otherwise would have been possible. You and others from Terra Marine also participated, uncompensated, extensively in all phases of data analysis and write-up; this participation was indispensable in the timely completion of accurate and complete reports. The killer whale project resulted in a variety of presentations and publications in the refereed scientific literature, including:

Leatherwood, S., K.C. Balcomb, III, C.O. Matkin and G. Ellis. 1984. Killer whales (Orcinus orca) of southern Alaska results of field research 1984. Preliminary Report. HSWRI Tech. Rep. No. 84-175. [Also presented at the 1985 IWC].

Ellis, G. (editor). 1984. Killer whales of southern Alaska a catalogue of individuals photo-identified in 1984. HSWRI Tech. Rep. No. 84-176. [Also presented at the IWC].

Ellis, G. (editor). 1987. Killer whales of Prince William Sound and southeast Alaska a catalogue of individuals photoidentified, 1976-1986. Sea World Research Institute, Hubbs Marine Research Center Tech Rep. No. 87-200. [Also presented at the 1987 IWC].

Ellis, G. (in press). Killer whales (Orcinus orca) photoidentified in Prince William Sound, Alaska, 1976-1986. Canadian Field Naturalist.

#### General

Terra Marine Research staff members have routinely logged their sightings of marine mammals during all operations. Those sightings, provided to this Institute at no cost, have been a significant part of the background data permitting us to prepare such publications as the following:

Leatherwood, S., R.R. Reeves, W.F. Perrin and W.E. Evans. 1982. Whales, dolphins and porpoises of the eastern North Pacific and adjacent Arctic waters; a guide to their identification. National Oceanic and Atmospheric

Administration Tech. Rep., National Marine Fisheries Service Circ. 444. 245 pp.

Leatherwood, S., B. S. Stewart, and P. A. Folkens. 1987. Cetaceans of the Channel Islands National Marine Sanctuary. NOAA, NMFS. Special Publication. 66 pp.

Connally, K.C., S. Leatherwood, G. James and B. Winning. 1985. A note on vessel surveys for whales in the Sea of Cortes, 1983-1985, and on the establishment of a data reporting center for the area. Document SC/37/025. IWC Scientific Committee. Bournemouth, England. 16pp.

That cooperation resulted in a paper that was presented at the International Whaling Commission Meeting in Bournemouth, England in 1985:

Since 1984, Stephen Leatherwood of this Institute has served as Scientific Advisor to Terra Marine Research for its own expeditions to Mexico to study marine life and island biogeography.

Terra Marine Research also has made space available to Institute staff and friends aboard your vessels working around the California Channel Islands and elsewhere in the eastern Pacific. These activities have expanded the Institute's staff's sphere of knowledge and thereby increased our competence to conduct quality research.

We appreciate Terra Marine Research and Education, Inc.'s long term commitment to research. With respect to this Institute, in particular, you and your staff are valued colleagues with whom we hope to conduct further work. By making safe, comfortable research platforms available to us (as you do to others) at a fraction of the cost necessary to charter such vessels from strictly commercial concerns, you have furthered our research and through it the advancement of knowledge about the marine environment.

Thank you.

Sincerely,



Donald B. Kent