

NEWSLETTER OF THE ALASKA CHAPTER OF THE AMERICAN STATISTICAL ASSOCIATION

1987 ANNUAL MEETING

The meeting will be held this year in Juneau. We have an excellent program lined up. The primary thrust of this year's program is bootstrapping. The meeting is planned for Wednesday, September 30 through Thursday, October 1. Prior to the meeting we will be sponsoring the ASA video short course titled "An Introduction to Bootstrapping" by Drs. Bradley Efron and Robert Tibsharani. The short course may be held in conjunction with the University of Alaska, Juneau. The planned times for the short course are the afternoon of Monday, September 28 through the morning of Wednesday, September 30. The short course is open to all interested parties for a reasonable fee. Questions regarding the short course should be directed to Allen Bingham (267-2327).

At the annual meeting we have invited Dr. Stephen Buckland (University of Aberdeen, Scotland, and the Inter-American Tropical Tuna Commission, LaJolla, California) to speak to us. He will present two talks regarding applications of the bootstrap. The titles with an abstract of his talks as well as the tentative schedule for the short course and meeting are included as an insert to this newsletter. A select list of Dr. Buckland's publications is also included. Prior to the Juneau meetings Dr. Buckland will be giving presentations in Fairbanks on campus. Questions regarding the Fairbanks presentations should be directed to Dana Thomas (474-6103).

Inquiries regarding the annual meeting preparations should be directed to Allen Bingham (267-2327). Gordon Kruse (465-4210) has graciously accepted the assignment of "local" arrangements chairman for the Juneau meeting. Gordon will be developing a list of pertinent information regarding local accommodations. A final schedule for the short course and meeting, as well as the list prepared by Gordon will be mailed out to members shortly before the meeting.

Report from the president

Several proposals to amend the current constitution were made at the November 1986 chapter meeting. The amendments dealt with changing the way in which officers are elected. Included as an insert to this newsletter is a copy

of the current constitution and bylaws, along with the proposed amended versions. These amendments will be voted on at the 1987 chapter meeting, scheduled for this fall. An affirmative two-thirds vote of the full and associate members present at the meeting will be required to amend the constitution.

COUNCIL OF CHAPTERS

Your chapter representative needs to know of any concerns, which should be brought up at the annual National ASA meeting in August. Send your concerns and comments by August 5, to Alan Johnson, 211 Mission Road, Kodiak, AK 99615. Please send a copy to the Chapter President, Earl Becker, 333 Raspberry Road, Anchorage, AK 99518-1599.

SHORT COURSE IN TIME SERIES

This past winter the Chapter sponsored a continuing education videotape entitled "Forecasting and Applied Time Series Analysis" by Johannes Ledolter and Bovas Abraham (1984). The short course video was viewed by 20 in Juneau and 9 people in Anchorage. As a result, \$1,160 was raised and new and renewing members were added through this exposure. The Chapter wishes to thank Terry Quinn and Bob Marshall of the University of Alaska Juneau for co-hosting and narrating the Juneau showing. It was offered in connection with UAJ for one credit with completion of a project paper. We understand that some of the projects were quite interesting.

MEMBERSHIP DIRECTORY

The Alaska Chapter of ASA is required by its constitution to publish a membership directory at least every five years. The first such directory was published when the Chapter was organized in 1982. The goal for publication of the second directory is this fall. Hopefully it can be distributed at our next meeting. Survey forms were sent with the October 6, 1986 newsletter and the response thus far has been good. If you feel you may not have returned a survey and wish to be in the directory please contact Linda Brannian (see section on dues for address).

DUES

Please note that the number next to your name on the mailing label is the last year for which we

have received dues and the letter represents the type of membership (R=Regular, S=Student). Please renew your membership. Dues may be sent to Linda Brannian, ADF&G Div. CF, 333 Raspberry Rd., Anchorage, AK 99518 or included with your membership dues for the national organization. Regular membership is \$10 and \$1 for students, make checks payable to AK ASA, and send to Linda Brannian.

CHAPTER OFFICERS

OFFICE NUMBER	NAME	PHONE
PRESIDENT	EARL BECKER	267-2407
V PRESIDENT	ALLEN BINGHAM	267-2327
SECR./TREAS.	LINDA BRANNIAN	267-2118

TENTATIVE SCHEDULE FOR 1987 ANNUAL ALASKA CHAPTER AMERICAN STATISTICAL ASSOCIATION MEETING AND SHORT COURSE

DATE TIME EVENT

SEPTEMBER 28 AFTERNOON SHORT COURSE ON BOOTSTRAPPING, ASA videotape course

by Drs. Bradley Efron and Robert Tibsharani

SEPTEMBER 29 ALL DAY SHORT COURSE ON BOOTSTRAPPING (continued)

SEPTEMBER 30 MORNING SHORT COURSE ON BOOTSTRAPPING (continued)

SEPTEMBER 30 AFTERNOON ANNUAL BUSINESS MEETING

TALK BY DR. STEPHEN BUCKLAND:

"Bootstrap standard errors and confidence intervals". The bootstrap method is described, and several types of bootstrap confidence interval methods are compared. Advantages relative to both the jackknife and analytic methods are discussed. Two kinds of asymptotically exact confidence intervals are considered, one using the bootstrap technique and the other using permutation tests.

Round Table Discussion on Applications of Bootstrapping. Proposed Panel:

Dan Reed (Chairman), Bob Conrad, and Alan Johnson. Each panel member will give a short presentation on a recent application of the bootstrap method. This will be followed by an open question and answer session.

OCTOBER 1 MORNING TALK BY DR. STEPHEN BUCKLAND:

"Applications of the bootstrap to quantify precision in the field of animal abundance estimation". Examples from mark-recapture, line transect sampling and circular plot sampling are used to illustrate both the parametric and the nonparametric bootstrap. Problems discussed will include the estimation of: the size of ant colonies; the parameters of the Jolly-Seber model; survival rates of fulmars and gulls; trends in abundance of dolphins in the eastern tropical Pacific; and densities of songbirds.

Round Table Discussion on Economic Surveys. Proposed Panel: Mike Thomas (Chairman), Mike Mills, and SuzAnne Miller. Each panel member will give a short presentation on a recent application of the bootstrap method. This will be followed by an open question and answer session.

NOON NO-HOST LUNCHEON

AFTERNOON: Round Table Discussion on Applications of Mark Recapture. Proposed Panel: Earl Becker (Chairman), Linda Brannian, and Hal Geiger. Each panel member will give a short presentation on a recent application of the bootstrap method. This will be followed by an open question and answer session.

Open Forum. Members wishing to give a short talk (15 minutes) on either recent work or a problem they found interesting (seemingly unsolvable?) are urged to do so at this time.

SELECTED PUBLICATION LIST OF STEPHEN BUCKLAND

Buckland, S. T. 1987. On the variable circular plot method of estimating animal density. *Biometrics* 43:363-384.

Buckland, S. T. 1986. Calculation of Monte Carlo confidence intervals. *Applied Statistics* 34:296-301.

Buckland, S. T. 1985. Perpendicular distance models for line transect sampling. *Biometrics* 41:177-195.

Buckland, S. T. 1984. Monte Carlo confidence intervals. *Biometrics* 40:811-817.

Buckland, S. T. 1983. Monte Carlo methods for confidence interval estimation using the bootstrap technique. *BIAS* 10:194-212.

Buckland, S. T. 1983. Examination and extension of statistical methodology for estimating animal abundance. Ph.D. thesis, University of Aberdeen, Scotland.

Buckland, S. T., I. C. R. Rowley, and D. A. Williams. 1983. Estimation of survival from repeated sightings of tagged galahs. *Journal of Animal Ecology* 52:563-573.

Buckland, S. T. 1982. Statistics in ornithology. *Ibis* 124:61-66.

Buckland, S. T. 1982. A note on the Fourier series model for analyzing line transect data. *Biometrics* 38:469-477.

Buckland, S. T. 1982. A mark-recapture survival analysis. *Journal of Animal Ecology* 51:833-847.

Buckland, S. T. 1980. A modified analysis of the Jolly-Seber capture-recapture model. *Biometrics* 36:419-435.

Buckland, S. T., and A. G. Knox. 1980. Brambling breeding in Scotland. *British Birds* 73:360-361.

Buckland, S. T. 1977. The estimation of survival parameters from repeated sightings of tagged galahs. M.Sc. thesis, University of Edinburgh.