

WESTERN AUSTRALIAN WILDLIFE RESEARCH CENTRE

WILDLIFE RESEARCH SEMINAR

16 - 17 JULY 1985

J.A.K. LANE

BACKGROUND

With the formation of DCALM in March 1985 the Waterbird Research group of the W.A. Wildlife Research Centre comprises two technical officers and half a senior research officer.

Current activities of the Waterbird Research group include:

1. Provision of advice concerning management of duck hunting in Western Australia; ie determination of hunting seasons, game and protected species, bag limits, shooting areas, refuges etc.
2. Research relating to the management of duck hunting in W.A., eg annual assessment of conditions (environmental) for waterfowl breeding, waterfowl population assessment, analysis of hunter success.
3. Liaison with pro-hunting, non-hunting and anti-hunting associations and individuals concerning management of duck hunting in W.A. eg Western Australian Field and Game Association, Royal Australasian Ornithologists Union.
4. Provision of technical advice and comment to Department of Conservation and Environment, Town Planning Department, Public Works Department and other State and Local Government bodies concerning potential impact of proposed developments involving wetlands, regardless of tenure. Advice on such matters may also be provided at times to other organizations and individuals such as environmental consultants, conservation groups and concerned members of the public. Some areas of current involvement are the Busselton Wetlands (proposed canal developments), Peel Inlet (canal developments and channel dredging), Lake McLarty (small holding subdivision), Maylands Peninsula.

5. Participation in various inter-departmental committees concerning special management problems eg Northern Arthur River Wetlands Rehabilitation Committee (salinisation of Lake Toolibin), Beverley Lakes Working Group (water level and salinity control), Mosquito Control Review Committee (mosquito control on Peel and Leschenault Inlets).
6. Involvement in acquisition and management of Wetland Nature Reserves and other areas of DCALM (wet)land. Areas of current involvement include Bengier Swamp, Lakes Forrestdale, Chittering, Carbul, Gidong and Kubitch and the Muir group of lakes.
7. Supervision of consultancies relating to specific management problems eg Bengier Swamp management, Lake Forrestdale bulrush and midge control.
8. Development and direction of waterbird and wetland related research programmes undertaken under contract by non-government volunteer organizations eg 1981-85 RAOU South West Waterbird Survey.
9. Provision of logistical support and technical advice for research programmes undertaken by volunteer waterbird/wetland groups eg North-West Wader Expeditions conducted by the Australian Wader Studies Group.

Research programmes, current and proposed, undertaken or directed by the Waterbird Research Group are as follows.

WETLAND MONITORING PROGRAMME

Staff: D.R. Munro, J.A. Lane, G.B. Pearson and the W.A. Field and Game Association.

Objectives: To monitor seasonal, annual and long term changes in water depth and quality of selected wetlands in the south-west of the State. Data obtained are used as a basis for determining duck-hunting seasons and in the management of wetlands.

Date Commenced: The first depth gauge was installed in 1977. Two-monthly monitoring began in November 1978.

Proposed Date of Completion: The two-monthly monitoring program was completed in May 1985. September and November monitoring will continue each year as a basis for duck season determination.

Work Already Carried out: Depth gauges have been installed on 120 wetlands from Dongara to Esperance. Water depth and salinity were monitored at two month intervals from November 1978 to May 1985. This program provided an essential measure of wetland "condition" during the RAOU South West Waterbird Survey.

In conjunction with rainfall statistics, results obtained from the monitoring program provide a sound basis for year to year comparisons of conditions for waterfowl breeding and for prediction of conditions likely to prevail during impending duck shooting seasons.

The data gathered continue to be of considerable assistance in dealing with management problems which have a hydrological component, eg Forrestdale Lake.

Proposed Work Program 1985/86: Monitoring frequency will be reduced to September and November each year, as a basis for duck season decisions. More frequent monitoring of selected key wetlands, particularly those with management problems, eg Lake Forrestdale, will be undertaken as required. Volunteer assistance will be used where most efficient.

SOUTH-WEST WATERBIRD SURVEY

Staff: R.P. Jaensch (RAOU), J.A. Lane, G.B. Pearson and 100 volunteers.

Objectives: To provide information on waterbird usage of Wetland Nature Reserves in order to facilitate their wise management. To assess the role and importance of the WNR system in the conservation of waterbird populations. To provide appropriate experience for future monitoring of waterbird abundance. This survey is seen by other States and the RAOU as a pilot project for a national waterbird survey.

Date Commenced: April 1981.

Proposed Date of Completion: December 1985.

Work Already Carried out: The Royal Australasian Ornithologists Union was commissioned to undertake this 4 year study. Total funding is \$134 500; \$71 300 from the Wildlife Conservation Trust Fund (duck-shooters' licence fees) and \$63 200 from Consolidated Revenue. The RAOU appointed a full time Project Coordinator, Mr Roger Jaensch, to develop census procedures; recruit, train and coordinate a team of amateur observers; collate and analyse data obtained, and to prepare a final report.

Surveys of waterbird usage (species, numbers, breeding activity areas utilized etc.) have been conducted at frequent (two month or less) intervals from July 1981 to May 1982 to May 1985. Approximately 100 amateur observers are involved on a regular basis, surveying the wetland of their choice. More than 200 Wetland Nature Reserves have been visited.

The total number of waterbird species recorded to December 1984 was 97, with 49 recorded breeding. The highest total

count for any month was 122 000 in January 1983. The highest count for any one wetland was 41 000 at Peel Inlet. The highest species count was 67 at Alfred Cove and highest number of breeding species 21 at Lake Toolibin.

Proposed Work Program 1985/86: The final field survey was conducted in May 1985. The remaining seven months will be spent finalizing the data base, analysing the data and preparing the final report by December 31, 1985. This will complete the project.

The South West Waterbird Survey has aroused considerable interest, both public and government, in W.A. and nationally. The data gathered will be of considerable benefit to managers and the spinoffs of greater public awareness, involvement and commitment cannot be over estimated.

The Survey has also highlighted the need for and practicality of several new projects. These include:

- a) Annual abundance monitoring of game species of ducks. (There is no effective monitoring at present).
- b) Annual monitoring of breeding status of "at risk" colonial nesters eg Great Egret (Egretta alba) (W.A. has international treaty obligations with this species).
- c) Continued two-monthly monitoring of selected wetlands (approximately 20) which are of national or international significance, and under threat.
- d) Assessment of remote wetlands of probable international significance. "Expeditionary" surveys will be required. W.A. has international treaty obligations in this regard.

It is proposed that the Department of Conservation and Land Management establish as a major new initiative a five year contract with the Royal Australasian Ornithologists Union to conduct these projects. Funding to be \$60 000 per year, with \$20 000 from CRF and \$40 000 from the Trust Fund. Duck shooters licence fees presently raise $\$5 \times 5\ 000 = \$25\ 000$ per year and in 1985/86 should raise $\$10 \times 5\ 000 = \$50\ 000$ per year in which a Full Season is declared.

Such an initiative would not only enable the above projects to be undertaken most effectively at minimum cost, it would also enable the RAOU to continue to serve as a focus for other important projects such as the Ground Parrot Survey, North West Wader Expeditions, Perth Metropolitan Bird Survey, Feral Duck Survey, Eyre Bird Observatory and proposed Broome Observatory. Over the past five years the RAOU has established the only comprehensive, computerized bird data base in Western Australia. This has proved to be a most valuable information resource for the conservation of bird habitat in this State. As such it is frequently referred to by government departments, community groups and individuals, and is worthy of continued support.

Purser. (Dept. Animal Science, University of Western Australia : Nedlands.)

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Conservation Genetics: with special reference to the problems associated with small population size, habitat isolation and fragmentation.
Fire ecology and conservation.
Re-introduction of species to reserves.

AREAS OF INTEREST AND ADVICE

Kangaroo management.
Nutritional biology and ecology with special reference to herbivory.
Application of microcomputers to research.

COMMITTEES

Feral Cats - Biological Committee.
Feral Pigs - Control.
Computing - Wildlife Research Branch.
Computer Users Group - Division of Research and Planning.

Jim Lane B.Sc. - Senior Research Officer

RESEARCH TOPICS

Waterbird population and habitat assessment.

AREAS OF INTEREST AND ADVICE

Conservation of waterbird populations and their habitats.
Management of waterfowl hunting.
Public attitudes to wildlife conservation.
Community involvement in wildlife conservation.
The role and structure of government.

COMMITTEES

CONCOM Working Group on International Treaties relating to Migratory Birds and Wetlands of International importance.

Research Committee of the Royal Australasian Ornithologists Union.

Northern Arthur River Wetlands Rehabilitation Committee.

Beverley Lakes Working Group.

Norman McKenzie B.Sc. (Hons.) M.Sc. - Research Officer

RESEARCH TOPICS

Biological survey for nature conservation.
Design philosophies, strategies, data bases.
CTRC System 11 (Eastern Goldfields).

DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT

WILDLIFE RESEARCH BRANCH

RESEARCH PROGRAMS 1985

16 - 17 July 1985

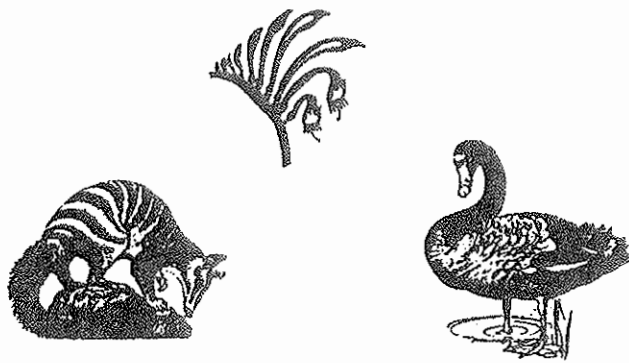
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1985

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