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WEST AUSTRALIAN FIELD & GAME ASSOCIATION

RESEARCH SECTION

ANNUAL WETLAND SURVEY AND WATERFOWL POPULATION AND BREEDING CENSUS

1979

COMPILED BY THE RESEARCH SECTION, W.A.F.G.A.
FOR SUBMISSION TO THE
W.A.W.A. BIRD COMMITTEE
NOVEMBER 26th 1979.

CONTENTS.

APPENDIXES.

ANNUAL WETLAND SURVEY AND WATERFOWL

POPULATION AND BREEDING CENSUS. 1979

1. INTRODUCTION.

In accordance with the Association's practice of submitting details and interpretations of wetland and waterfowl surveys to the W.A.W.A. Bird Committee prior to considerations for an open duck season, the following report is presented. Surveys were collected during mid-October to late November.

It should be noted here that Association commitments to the National Simulated Field Shooting Titles held in late September in Perth drained its manpower resources (all voluntary) considerably, to the extent that the number of wetland surveys completed were substantially less than in previous years.

2. SURVEY METHOD.

As in 1978, surveys were directed to Wetland Complex Systems. In cases where Complexes comprised many lakes, the procedure was, as before, to survey a selected number being representative of the whole Complex.

Ground inspections of wetlands were made in all cases and details of water levels, waterfowl populations and breeding activity were recorded. Where a depth gauge was installed, readings were taken accordingly, otherwise depths are estimates, based on the member's local knowledge. It is practice for members to survey lakes thoroughly familiar to them.

Salinity readings were obtained where possible.

By kind invitation of the Fisheries and Wildlife Department waterfowl Research unit, a Field and Game member accompanied unit personnel on an aerial survey of the central Southern wetland group. Data obtained in that survey is not recorded in this report.

3. RAINFALL.

Rainfall for the year can only be described as abyssmally low.

Over the South West of the State, total rainfall January to April generally correlated well with the total normal amount for that period. But from May, rainfall in all areas of the South West depreciated sharply.

Rainfall figures for the South West see significant negative departures from normal to the end of October for all districts, the extremes being North Coastal (-41%) and South Coastal (-27%). The mean departure from normal for all districts is -34%.

In September, when total rainfall figures should normally be approching a peak, approximately 40% of the South West was classified as seriously or severely deficient in rainfall.

The total effect on wetland & (other than the South coastal areas) relying on catchment runs off was disastrous.

4. WETLAND WATER LEVELS.

The accumulated effect of poor rainfall in 1976, 1977, 1978 (reasonable) and 1979 places the majority of wetlands Complexes in a debilitated State, the scale of which has not been seen for many years.

Isolated wetlands on the West coastal system such as Chittering, Wannamal, Benger, Joondalup and Jandabup hold reasonable quantities of water.

However, virtually the whole of the inland wetland Complexes are dry or will be dry by the beginning of January.

Although survey data is not available, reports nevertheless indicate that many of the South coastal lakes are high to full from Albany to Esperance. This would be due to more direct and efficient run off from catchments and the fact that pre-rainfall water levels in these lakes were not as depleted as those to the North.

5. WATERFOWL POPULATIONS AND BREEDING ACTIVITY.

Waterfowl in the recently completed surveys have been most conspicuous by their absence.

The most significant numbers recorded were in the order of 300 - 500 Black Duck and Grey Teal were observed on Forrestdale, Chittering and Mears, the latter probably being dry by January.

Most of the inland Complexes could not be expected to be holding large waterfowl populations in light of the lack of water but surveys have failed to locate large numbers of birds in the usual areas of large congregations.

The South coastal system, expecially the Bremer Bay to Esperance strip is reported to be holding large populations of birds, particularly Black Duck.

In the absence of accurate figures on the populations of Grey Teal and Black Duck, and indeed the most numerous of the other common species, it can only be speculated as to their whereabouts. Early migration is one explanation but the extent of this is virtually impossible to substantiate.

Waterfowl breeding has been very difficult to assess due to prevailing conditions. Some breeding has been observed on the Swan coastal areas North to Wannamal but the extent of breeding appears to be significantly less than in 1978.

Again, the South coastal area may have supported heavy breeding activity but lack of data prevents confirmation.

6. CONCLUSIONS.

Evaluation of the available data indicates an extremely poor situation for both wetlands and waterfowl for all but the South coast areas.

Some concern can be expressed for the apparent diminishment of breeding but it is quite conceivable that waterfowl stocks can be sufficiently compensated for by breeding activity in the South coastal areas.

6. CONCLUSIONS. cont.

In the light of all evidence, too dark a situation should not be drawn over apparent lack of general distribution of birds and breeding. Waterfowl have demonstrated remarkable powers of recovery and survival in Australia generally, not the least aspect being their nomadic ability.

It is again conceivable that large numbers of waterfowl may have moved Interstate or North and similar numbers could be expected to return when conditions warrant.

It is the migratory aspect of waterfowl movements that requires a substantial monitoring programme to provide the necessary authoritative data in situations such as we now experience.

7. RECOMMENDATIONS.

In view of the available data, which indicates a serious lack of surface water in the majority of recognised wetland Complexes, this Association does NOT recommend an open season on ducks for 1979-80.

It anticipated that the benefit of a closed season will be reflected in waterfowl stocks being consolidated during 1980 and subsequent years.

It should be noted however, that sections of this Association pressed determinedly for a confined open season on the South coast only, where local evidence indicated to them that this area alone could apparently absorb a shooting season.

APPENDIX

D. CARSON. 4/1 the Strand Dianella

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA: METRO.

WETLAND NAME	DATE OF SURVEY	Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	SPECIES	No. of Clutches	Av. No. of Young	Av. Age of Young	SPECIES	No. of Clutches	Av. No. of Young	Av. Age of Young	Depth (Max. in metres)	High Av. or Low	AVAILABLE AQUATIC FOOD	WATER
		WATERFOWL COUNTS													BREEDING ACTIVITY	CLUTCHES				CLUTCHES			WATER LEVEL			
SACKADDER LK	13/10/79		30					12	32	2	1				SWANS	9	5	6.8 wks					1.5 M	HIGH	GOOD	✓
GOOLLELAL LK.	13/10/79								5		2												1.5 M	HIGH	GOOD	✓
LK NEERABUP	13/10/79		2					8			2				BLACK DUCK	1	4						0.5 M	LOW	GOOD	—
GNOWERGUP LK.	13/10/79	30	100		200			8	14		14				LARGE NUMBER OF BIRDS IN CLUTCHES UNABLE TO IDENTIFY BECAUSE OF DISTANCE								2'6"	AV.	GOOD	✓
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	15	16	17	18	19	20	21	22	23	24	25	

COMMENTS/OBSERVATIONS:

JACKADDER 90 SEAGULLS 50 COOT 1 CORMORANT 1 HAWK

GOOLLELAL 30 CRESTED GREBE 30 COOT 1 CORMORANT

NEERABUP 60 COOT

GNOWERGUP X STILT 100 COOT

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply G(Good), M(Moderate) or P(Poor)

COLUMN 33. State if saline content: H (Hypersaline) M(Moderate), L (Low) or F (Fresh water)

C.S. N&C [illegible]

Completed by

[signature] 4/1/[illegible]

J. CARSON.

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA: SWAN COASTAL

WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS: Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	BREEDING ACTIVITY: SPECIES	CLUTCHES: No. of Clutches	Av. No. of Young	Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	Av. No. of Young	Av. Age of Young	WATER LEVEL: Depth (Max. in metres)	High Av. or Low	AVAILABLE AQUATIC FOOD	WATER
YANGEBUP LK.	14/10/79		16						2		1				SWAN	1	5	6-8 WKS					UP TO ~~[illegible]~~ 1.0	LOW	GOOD	(42) ✓
THOMPSONS LK	14/10/79	40	100		10			50	200						SWAN	NUMEROUS BIRDS 6-8 WKS OLD							·55	LOW	GOOD	(41) ✓
LK BOOLCONGUP	14/10/79								80														·75	LOW ~~[illegible]~~	GOOD	(57) ✓
LK WALYUNGUP	14/10/79				9				40		1												UP TO 1.0	LOW TO AV.	~~[illegible]~~ MOD	(52) ✓
LK GOEGRUP	14/10/79	6	8		44				12														1.5	AV.	GOOD	(59) ✓
PEEL INLET																										
COL. 1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20	21	22	23	24	25	26

COMMENTS/OBSERVATIONS:
YANGEBUP 100 COOT 2 STILTS
THOMPSONS 1 WHITE SWAN 50 STILTS

NOTES ON RECORDING PROCEDURE
COLUMN 25.
State if supply G (Good), M (Moderate) or P (Poor)
COLUMN 26.
State if saline content: H (Hypersaline), M (Moderate), L (Low) or F (Fresh water) or. NaCl reading in p.p.m. if available

Completed By
[signature]
9 W 1.80

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION

WETLAND SURVEY

FORM A

DISTRICT/AREA — WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS: Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	BREEDING ACTIVITY: SPECIES	CLUTCHES: No. of Clutches	Av. No. of Young	Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	Av. No. of Young	Av. Age of Young	WATER LEVEL: Depth (Max. in metres)	High Av. Low	AVAILABLE AQUATIC FOOD	WATER…
LK CLIFTON																										
LK PRESTON																										
LK JOONDALUP ✓	13/10/79								9		5												2.96 GAUGE	AV.	GOOD	
LK JANDABUP ✓	13/10/79								2														1.3	AV.	POOR	
LK FORRESTDALE ✓	14/10/79	100	300		500				250														·125	LOW	GOOD	
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20	21	22	23	24	25	26

COMMENTS/OBSERVATIONS

JOONDALUP 14 GREBE

JANDABUP 5 CORMORANT 1 PELICAN 2 HAWKS

NOTES ON RECORDING PROCEDURE

COLUMN 25.
State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26.
State if saline content: H (Hypersaline), M [illegible]

Completed By: [signature] & Wife

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA: MOROWA

WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS												BREEDING ACTIVITY								WATER LEVEL		AVAILABLE AQUATIC FOOD	WATER SALINITY
		Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D. / Hybrid	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	Depth (Max. in metres)	High / Low		
EGANU	28/10/79	150												← NIL →								Approx. 0.8m	Low	M	High
PINJARREGA	28/10/79	300												← NIL →								1.16m	Low	M	High
Col.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

COMMENTS/OBSERVATIONS: Water level down approx 1m. from same period 1978.

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline)

Completed By:
R. Matteram
P. Matteram

F. DART-KELLY.

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA	DATE OF SURVEY	WATERFOWL COUNTS													BREEDING ACTIVITY									WATER LEVEL		AVAILABLE AQUATIC FOOD	WATER SALINITY
BEVERLEY.																CLUTCHES					CLUTCHES						
WETLAND NAME		Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head.	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	SPECIES	No. of Clutches	Av. No. of Young	Av. Age of Young	SPECIES	No. of Clutches	Av. No. of Young	Av. Age of Young		Depth (Metres)	High/Low		
LAKE MEARS	21/10/79	1000	500	/	300	/	/	/	100	/	/	/	/	/		NIL.				NIL.				0.78	Low		46500 ppm NaCl
CHANNEL LAKES (CROSSING)	21/10/79	/	/	/	/	/	/	/	/	/	/	/	/	/		NIL				NIL.				0.69	Low		26,000 ppm.
FIRST NORTHERN ACCESS RD. DOUE XING.	21/10/79	150	/	/	/	/	/	/	/	/	/	/	/	/		NIL				NIL					Low		
Col.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		23	24	25	26

COMMENTS/OBSERVATIONS

DEPTH GAUGE MEARS. 0·78m XING. 0·69m

APPROX 200 SILVER GULLS ON LAKE MEARS.

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline), M (Moderate), L (Low) or F (Fresh water) or NaCl reading in P.P.M. if available

Completed By:

F. DART-KELLY.

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM **A**

DISTRICT/AREA: WANNAMAL

WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS													BREEDING ACTIVITY									WATER LEVEL		AVAILABLE AQUATIC FOOD	WATER SALINITY
		Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	Depth (Max. in metres)	High Av. or Low		
WANNAMAL	2/11/79	30	12		70				100+															·8m	Av		
CEMETERY	4	16	30	2		10																		·7m	Av.		
FOOTBALL	4		6		8																			·6m	Av.		
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20	21	22	23	24	25	26	

COMMENTS/ OBSERVATIONS

Absence of young birds/clutches on main lakes but some observed on smaller waters adjacent.

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline),

Completed By:

L. DREW.

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA / WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS												BREEDING ACTIVITY								WATER LEVEL		AVAILABLE AQUATIC FOOD	WATER SALINITY
		Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	Depth (Max. in metres)	High or Low		
L. CHITTERING	2/11/79		300 to 400.		350	9			60															2m	High		
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20	21	22	23	24	25	26

COMMENTS/ OBSERVATIONS

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline), M (Moderate), L (Low) or F (Fresh Water)

Completed By:

R. DREW.

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA: NARROGIN

WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS													BREEDING ACTIVITY									WATER LEVEL		AVAILABLE AQUATIC FOOD	WATER SALINITY
		Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	Depth (Max. in metres)	High / Low		
NARROGIN LAKES.	15/11/79	←				DRY																					
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20	21	22	23	24	25	26	

COMMENTS/ OBSERVATIONS

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline),

Completed By:

K. Keevil

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA: ARTHUR R.

WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS												BREEDING ACTIVITY								WATER LEVEL		AVAILABLE AQUATIC FOOD	WATER SALINITY
		Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D. / Hybrid	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	Depth (Max. in metres)	High / Low		
ARTHUR RIVER	15/11/79		300											None Observed →									Low		
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

COMMENTS/OBSERVATIONS

Survey taken downstream of Norrogin Lakes System.
- Water levels confined to few large pools.

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline)

Completed by:
K. Keevil

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA	DATE OF SURVEY	WATERFOWL COUNTS												BREEDING ACTIVITY								WATER LEVEL		AVAILABLE AQUATIC FOOD	WATER SALINITY
WETLAND NAME		Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D. / Hybrid	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	CLUTCHES: Av. No. of Young	CLUTCHES: Av. Age of Young	Depth (Max. in metres)	High / Low		
WAGIN LAKES.	12/11/79.			ALL		VERY			BOR		TO		DRY.												
Col.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26

COMMENTS/ OBSERVATIONS

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline), M (Moderate), L (Low) or F (Fresh water)

Completed By:

R. Durell.

WEST AUSTRALIAN FIELD AND GAME ASSOCIATION — RESEARCH SECTION
WETLAND SURVEY

FORM A

DISTRICT/AREA: YEALERING

WETLAND NAME	DATE OF SURVEY	WATERFOWL COUNTS: Mountain D.	Black D.	Chestnut T.	Grey T.	Blue Wing Shoveler	Wood D.	Hard-head	Black Swan	Blue Billed D.	Musk D.	Pink Eared D.	Freckled D.	Hybrid	BREEDING ACTIVITY: SPECIES	CLUTCHES: No. of Clutches	Av. No. of Young	Av. Age of Young	SPECIES	CLUTCHES: No. of Clutches	Av. No. of Young	Av. Age of Young	WATER LEVEL: Depth (Max. in metres)	High & Low	AVAILABLE AQUATIC FOOD	WATER SALINITY
LAKE YEALERING	15/11/79.																							Very Low.		
GILMANS LAKES.	"	←			DRY			→																→		
Col. 1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16	17	18	19	20	21	22	23	24	25	26

COMMENTS/OBSERVATIONS: Yealering Lake very low — water being pumped from bore in main lake into swimming pool area.

NOTES ON RECORDING PROCEDURE

COLUMN 25. State if supply: G (Good), M (Moderate) or P (Poor)

COLUMN 26. State if saline content: H (Hypersaline),

Completed By: K. Keevil