APPENDIX A.

EXPLANATION OF RECOMMENDED DUCK-SEASON SPECIFICATIONS

1. OPENING DATE:

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It is recommended that, when declared, both Full and Restricted Seasons commence each year on the <u>Second</u> <u>Weekend of January</u>. This date is considered to be a suitable compromise between two competing factors:

- i) the need to ensure that a shooting season does not commence until breeding is completed, and
- ii) the desirability of commencing a shooting season as early as possible in summer to ensure that adequate water area is available for birds to seek refuge from hunters.

Though some annual variation in timing of breeding undoubtedly occurs, this variation is not considered to be sufficiently large or important to warrant annual adjustments to the opening date. Furthermore, variations in timing from one year to the next tend to be offset by variations in timing from one area of the south-west to another. Thus, there will always be some areas where breeding continues into late January, and other areas where breeding ceases by early December.

The phase of the moon, and some shooters' (a small minority) preference for night-shooting, are not considered to be factors of over-riding importance in determining the opening date of a season. Recommended opening dates and January moon-phases for years 1980 to 1990 are provided in Table 1. Full Moon and opening weekend coincide in one year only - 1982.

Opening dates in other states of Australia are not varied from year to year.

2. OPENING DAY:

It is recommended that <u>Full Seasons</u> commence on the <u>Saturday</u> of the second weekend in January. Shooters are generally in favour of a Saturday opening as this permits two days shooting on the opening weekend. There appear to be no sound biological or social reasons why a Saturday opening should not be adopted for Full Seasons.

A Sunday opening is recommended for Restricted Seasons in order to reduce the number of ducks taken on opening weekend. This is the sole justification. Though no data are available, it is generally believed that a substantial proportion of shooters shoot on opening weekend only. Halving the duration of the opening weekend is therefore considered to be an effective and acceptable method of significantly reducing the overall kill for the season. In all other states of Australia, duck seasons open each year on a Saturday.

3. OPENING TIME:

It is recommended that Full Seasons open at 6.00 PM on the Saturday. Opening at this time enables all shooters to reach the shooting-site of their choice for the seasonopening (many shooters travel hundreds of kilometres to reach their favourite site). A 6.00 PM opening also provides approximately 1 hour to 1½ hours of shooting before sunset (See Table 2 for sunrise and sunset times for selected localities in the South-West and Eucla Land Divisions), giving shooters adequate opportunity to fill their bags before nightfall.

A 6.00 AM opening is recommended for Restricted Seasons. Opening at this time on the Sunday provides adequate opportunity for all shooters to reach the site of their choice, take their "bag", and return to their places of origin by Sunday evening. A 6.00 AM opening (as opposed to an earlier opening time) also ensures that there is sufficient light for species recognition.

The one important biological factor to be considered in determining opening times is heat-stress. Midday temperatures in the south-west of W.A. in January frequently exceed 35°C. For this reason opening times have always been early morning or late afternoon. It is recommended that this policy continue.

Opening times and days for other states of Australia are as follows: NSW, SA, TAS - one hour before sunrise Saturday; VIC - 7 AM Saturday; QLD - midnight Friday (0001 hrs Saturday).

4. SEASON LENGTH:

It is recommended that a Full Season be of approximately 2 months duration. Seasons would thereby close before the end of March (see Table 1). Seasons of this length would provide ample opportunity for shooters to pursue their sport whilst ensuring that shooting ceases prior to wetlands reaching their extreme condition of late autumn, and well before pairing of ducks for the following breeding season.

It is recommended that Restricted Seasons be of 4 weeks $(4\frac{1}{2} \text{ weekends})$ duration. It is considered that a reduction in season length from 2 months to 4 weeks will assist in reducing the number of ducks taken in a season, whilst still providing adequate opportunity (considering the circumstances under which a Restricted Season would be declared) for shooters to pursue their sport and to justify the cost of a license. $(4\frac{1}{2} \text{ weekends x 10 ducks})$, weekend = 45 ducks; 29 days x 5 ducks/day = 145 ducks).

It should be noted that, in practice, halving the length of the season is most unlikely, in itself, to halve the number of ducks taken in a season, since shooters tend to modify the intensity of their shooting activities according to the time available. Thus, in an 8-week season a shooter might shoot every second weekend whereas in a 4-week season he may decide to shoot every weekend. Though no data are available, it is probable that a reduction in season length from 8 weeks to 4 would, in itself, reduce the "take" by no more than 25%.

Season length in W.A. has varied between 3 weeks and 16 weeks since 1967. Seasons in the eastern states are 9-10 weeks duration each year, except for Queensland which has seasons of 12 weeks duration.

5. BAG LIMIT:

It is recommended that the Bag Limit in a Full Season be 10 birds of any game species. This is considered to be a reasonable limit during average or better-than-average years, from both the biological and social viewpoints. Opening Day bag-check data collected since 1973 indicate that almost 90% of shooters are either unable or unwilling to fill their bags in seasons with 10 bird limits. The actual percentages of shooters sampled who took 9 or less birds on Opening Day in 1973-74, 1974-75 and 1975-76 were 89%, 86% and 87% respectively.

Bag limits for other states of Australia are as follows: VIC, NSW - 20 birds on opening day (species limit of 10 birds in Victoria), 10 birds any other day; SA, QLD. -12 birds per day; TAS - 10 birds per day (of which, no more than 2 shall be Mountain Duck). These limits are not varied from year to year.

It is recommended that the Bag Limit in a Restricted Season be 5 birds of any game species. Past experience suggests that bag limits of 4 or less birds are likely to be considered unreasonable by a substantial proportion of shooters and are therefore likely to be openly flouted (see Appendix C). A minimum bag limit of 5 birds is acceptable to the W.A. Field and Game Association, (Appendix B), and is therefore likely to be accepted, respected and adhered to by a substantial majority of shooters.

Interestingly, bag-check data indicates that a majority of shooters are unable or unwilling to take more than 5 birds on opening day. The percentages of shooters taking bags of 5 birds or less on opening days of 1973-74, 1974-75, 1975-76 and 1976-77 seasons were 73%, 61%, 67% and 71% respectively. 4/...

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Opening day bag check data can also be used to determine the theoretical reductions in "take" which would have resulted had the bag-limit for the above seasons been reduced from 10 to 5 birds. Those reductions are as follows: 1973-74 : 25%, 1974-75 : 27% and 1975-76 : 26%.

Split-Bags (e.g. 10 birds of which at least 7 shall be Mountain Duck) are generally unpopular with shooters. They tend to be seen as bags of 10, with (in this case) 7 "good" birds taken out, rather than as bags of 3 "good birds", with 7 Mountain Duck "thrown in". The Executive of the W.A. Field and Game Association has considered the matter at length and has decided not to support the splitting of bags. Importantly, the Executive has also decided not to seek additional Mountain Duck over and above the recommended "any game species" bags of 10 birds and 5 birds. In view of the above, and considering the fact that there is no <u>compelling</u> biological reason to place additional shooting pressure on the Mountain Duck (or any other species), it is recommended that, in future, bags not be split.

J.A.K. LANE Research Officer

July, 1979.

	OPENING DATE	JANUARY M	OON PHASES	CLOSING DA	TE (Sunday)	
	(Second weekend in January)	Full	New	4-week Season	8-week Season	
1980	January 12 or 13	Jan 2	Jan 18	Feb 10	Mar 9	
1981	January 10 or 11	Jan 20	Jan 6	Feb 8	Mar 8	
1982	January 9 or 10	Jan 10	Jan 25	Feb 7	Mar 7	
1983	Jan 8 or 9	Jan 29	Jan 14	Feb 6	Mar 6	
1984	Jan 7ª or 8	Jan 18	Jan 3	Feb 5	Mar 4	
1985	Jan 12 or 13	Jan 7	Jan 21	Feb 10	Mar 10	
1986	Jan ll or l2	Jan 26	Jan 10	Feb 9	Mar 9	
1987	Jan 10 or 11	Jan 15	Jan 29	Feb 8	Mar 8	
1988	Jan 9 or 10	Jan 4	Jan 19	Feb 7	Mar 6	
1989	Jan 7 or 8	Jan 22	Jan 8	Feb 5	Mar 5	
1990	Jan 13 or 14	Jan ll	Jan 27	Feb 11	Mar ll	

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TABLE 1: Opening Dates, Closing Dates and Moon Data of 4-week and 8-week Duck Seasons commencing second weekend in January 1980-1990. (Sunday Opening - 4week Seasons; Saturday Opening - 8-week Seasons).
Based on data supplied by Perth Observatory.

1987 Jan. 11

GERALDTON

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MERREDIN

NORSEMAN

		Rise	Set			Rise	Set			Rise	Set
		5:32				5:11					19:03
		5:40							-	5:04	
	30	5:49	19:18		30	5:29	19:09		30	5:14	10:00
			19:12	Feb			19:01			5:24	
	20	6:06	19:03		20	5:48	18:52		20	5:33	18:38
Mar	1	6 : 12	18:53	Mar	1	5:56	18:41	Mar	1	5:41	18:27
	10	6 : 18	18:43		10	6:02	18:30		10	5:48	18:16

PERTH

WAGIN

		5:29	Set 19:26 19:24 19:19	Jan		1.11	Set 19:23 19:21 19:17	Jan		Rise 4:51 5:00 5:10	Set 19:06 19:04 18:59
Feb	10 20	5:48 5:57	19:11 19:02	Feb	10 20		19:08 18:58	Feb	-	5:21 5:30	18:50 18:40
Mar		6:05 6:12	18:51 18:40	+	1 10	5:58 6:05	18:46 18:34	Mar		5:39 5:47	18:28 18:16

AUGUSTA

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ESPERANCE

Jan 1 2 3	0 5:17 0 5:26	Set 19:34 19:32 19:26	Jan	10	Rise 5:04 5:14 5:24	Set 19:25 19:23 19:18	Jan	10 20	Rise 4:28 4:37 4:46	18:33 18:31
Feb 1 2	0 5:47 0 5:57	19:18 19:07	Feb		5:35 5:45	19:08 18:57	Feb		4.56 5:05	18:19 18:09
Mar 1		18:55 18:43	Mar		5:54 6:02	18:45 18:33	Mar		5:13 5:20	17:58 17:47

TABLE 2: Sunrise and sunset times for selected localities in the South-West and Eucla Land Divisions - January to March 1980. Based on data supplied by Perth Observatory.

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