

California Department of Fish and Game
722 Capitol Avenue
Sacramento 14, California

REPORT OF THE 1959 GAME TAKE HUNTER SURVEY

The standard procedure, in practice since 1948, for conducting the Hunter Game Take Survey, was again employed for the 1959 hunter survey. A two percent random sample of hunting license purchasers was mailed questionnaires.

It is of importance to bear in mind, that due to the statistical bias inherent in surveys of this type, that the principal value of the total bag figures included in this report is in their indications of game bag trends.

A total of 10,461 questionnaires was mailed shortly after January 8, 1960, which was the closing date for the last regular 1959 hunting season. Some 5,047 questionnaires were returned, of which, 5,036 were useable and represented a return of 48.1 percent, an identical response to that received in 1958.

Of the 5,036 useable questionnaires returned, about 27 percent reported that they had hunted unsuccessfully and about 7 percent did not hunt.

Hunting license sales were estimated at 600,000, approximately the same number as were sold in 1958.

REGULATION CHANGES

The 1959 basic limit for ducks was lowered from 10 ducks in 1958 to 5 ducks in 1959.

Waterfowl shooting hours were changed: a 12 o'clock noon opening for the waterfowl season and sunrise to sunset for the balance of the season. This replaced the 1958 shooting hours of one-half hour before sunrise to sunset.

BAG BY SPECIES

PHEASANTS - 1959 Bag - 641,200

The 1959 pheasant bag was 9 percent below the 1958 reported kill of 704,400, which was the highest pheasant cock kill reported since 1953. The slight decline in 1959, from the 1958 bag, was anticipated since the pheasant hatch in 1959 was lower than the hatch recorded the previous year. Additionally, a lesser number of hunters was afield in 1959 than was reported in 1958.

QUAIL - 1959 Bag - 1,483,400

A decline of almost 24 percent below the 1958 bag of 1,939,800 quail was reported by survey respondents in 1959. Field reports had indicated a smaller quail population statewide due to the extremely dry conditions experienced in the spring of 1959.

Approximately 15 percent fewer quail hunters reported hunting effort than were reported in 1958.

DOVES - 1959 Bag - 3,577,900

The 1959 dove bag of 3,577,900 was an increase of about 5 percent over the 3,399,100 reported in 1958, with approximately the same number of dove hunters participating each year.

CHUKAR PARTRIDGE - 1959 Bag - 50,100

The 1959 chukar bag of 50,100 showed an increase of 75 percent over the 28,600 reported in 1958. The chukar partridge bag has shown a steady increase since the first open season in 1954. In this six-year period chukar populations have annually become greater and have experienced geographical expansions with a resultant increase in the areas being opened by the State to chukar hunting. The chukar as a game bird has been elevated in importance by the increased hunter participation.

SAGE GROUSE - 1959 Bag - 7,800

The 1959 sage grouse bag showed a reported rise of 73 percent over the 4,500 sage grouse reported in the bag for the 1958 season.

Prior to 1959 Modoc and Lassen Counties were the only areas open to sage grouse hunting. The addition of Inyo and Mono Counties in 1959 contributed to the reported 1959 increase.

SIERRA AND RUFFED GROUSE - 1959 Bag - 1,800

The 1959 bag was reported to be 40 percent lower than the 3,000 grouse bagged in 1958.

BAND-TAILED PIGEONS - 1959 Bag - 156,700

A drop of about 20 percent below the 1958 band-tail bag of 195,200 was reported in 1959. This decrease was noted principally in the areas which have been traditionally high in the pigeon harvest in former years.

Slightly fewer pigeon hunters were afield in 1959 than during the previous year according to questionnaire respondents.

JACKRABBITS - 1959 Bag - 1,132,500

The jackrabbit bag in 1959 dropped 23 percent below the 1,469,200 reported in 1958. The decrease in the 1959 bag was accompanied by an 8 percent drop in the number of jackrabbit hunters.

COTTONTAIL AND BRUSH RABBITS - 1959 Bag - 510,600

A 21 percent drop below the 1958 rabbit kill of 645,400 was reported in 1959. This decline was evident statewide, with an appreciable decrease being apparent in the traditional areas of former abundance and was accompanied by 17 percent less cottontail hunters reported.

TREE SQUIRRELS - 1959 Bag - 66,600

The tree squirrel bag in 1959 was approximately the same as the kill of 67,500 reported in 1958. As usual, some reports were received from counties in which there was no open season. Presumably some ground squirrels were reported in error.

UPLAND GAME SUMMARY

The dry spring of 1959 had an adverse affect upon reproduction of most upland game species. A shortage of water and forage was experienced with a resultant drop in most upland game populations.

The harvest of upland game species showed a decided decline, with the exception of doves, chukar partridge and sage grouse which showed increases.

Reported upland game hunting effort in 1959 was slightly over 2 million hunter days. This represents a decrease of 19 percent from the more than 2-1/2 million days reported in 1958.

DUCKS - 1959 Bag - 1,912,300

The 1959 duck kill was lower by almost 60 percent than the 1958 reported bag of 4,610,300. The principal contributing factors in this decrease were:

1. A reduced duck population, caused by drouth conditions on the breeding grounds.
2. Hunting restrictions, namely the cut in the basic limit from ten ducks to five and the change in morning shooting time from one-half hour before sunrise to a sunrise opening hour.
3. Hunting effort was off about 25 percent from the 1958 figure.

GEESE - 1959 Bag - 257,400

The goose bag in 1959 showed a decline of 32 percent from the kill of 379,200 reported in 1958.

Goose populations remained at approximately the same level as were reported for 1958. The decrease in hunting effort and generally poor hunting conditions contributed to the lower kill.

COOTS - 1959 Bag - 301,900

A decrease was reported for the 1959 coot season amounting to 40 percent less than the 505,900 reported for 1958.

WATERFOWL SUMMARY

The 1959 waterfowl season produced a smaller bag in all the waterfowl species. Drouth conditions on the duck breeding grounds reduced duck populations. A cut of 5 ducks in the basic duck limit, a change to a later hour for the traditional early morning shoot, the reduced number of available birds and a decline in hunting effort seriously affected the waterfowl bag.

DEER - 1959 Bag - 128,400 (Deer tag count 73,483)

The deer kill, as reported by questionnaire respondents, exceeded the deer tag count by 54,917 or 75 percent. This difference follows the trend which has been in evidence in former years. These figures compare to 118,400 reported on the 1958 Hunter Questionnaire and 58,669 from the 1958 deer tags.

BEARS - 1959 Bag - 2,000 (Tag count 1,016)

Questionnaire respondents reported taking about twice as many bears as were officially tallied from hunter submitted bear tags. This difference between the two figures follows the pattern evidenced in years past. These figures compare to 1,200 reported on the 1958 Hunter Questionnaire and 653 from the 1958 bear tags.

BIG GAME SUMMARY

The big game seasons in 1959 were very successful and exceeded results reported in the 1958 big game season.

An increase was reported in both the number of big game hunters and the hunting effort they expended. Almost 2-1/2 million big game hunter days were reported in 1959 compared with less than 2 million days in 1958.

ARCHERY POLL

In a poll to determine the extent of participation by archers in California deer hunting, it was reported that 26,900 archers hunted deer in 1959. These archers represented about 8 percent of the total deer hunters statewide, as reported by respondents to the hunter survey.

It was reported that 8,000 deer hunters were members of organized archery clubs.

The distribution of hunting effort by the 26,900 archery deer hunters is listed below:

<u>Hunting Method and Season</u>	<u>Percent</u>
Bow and Arrow in Archery Season <u>Only</u>	19.0
Bow and Arrow in Regular Season <u>Only</u>	0.4
Bow and Arrow in both Archery Season and Regular Season	6.6
Bow and Arrow in Archery Season and Gun in Regular Season	55.8
Bow and Arrow in Regular Season and Gun in Regular Season	4.9
Bow and Arrow in Archery Season and Regular Season and Gun in Regular Season	<u>13.3</u>
	100.0

TABLE I

MAILING AND RETURN BY COUNTY OF RESIDENCE - 1959 HUNTER QUESTIONNAIRE

	<u>QUESTIONNAIRES MAILED</u>	<u>PERCENT OF TOTAL MAILED</u>	<u>NUMBER RETURNED</u>	<u>PERCENT RETURNED</u>
1. ALAMEDA	516	4.9	271	5.4
2. ALPINE	-	-	-	-
3. AMADOR	10	0.1	8	0.2
4. BUTTE	192	1.8	89	1.8
5. CALAVERAS	11	0.1	5	0.1
6. COLUSA	27	0.3	5	0.1
7. CONTRA COSTA	400	3.8	199	4.0
8. DEL NORTE	52	0.5	23	0.5
9. EL DORADO	88	0.8	38	0.8
10. FRESNO	490	4.7	228	4.5
11. GLENN	53	0.5	19	0.4
12. HUMBOLDT	288	2.8	134	2.7
13. IMPERIAL	92	0.9	49	1.0
14. INYO	47	0.4	28	0.6
15. KERN	352	3.4	151	3.0
16. KINGS	68	0.7	31	0.6
17. LAKE	34	0.3	16	0.3
18. LASSEN	58	0.6	31	0.6
19. LOS ANGELES	1,757	16.8	861	17.1
20. MADERA	71	0.7	32	0.6
21. MARIN	115	1.1	70	1.4
22. MARIPOSA	11	0.1	4	0.1
23. MENDOCINO	116	1.1	56	1.1
24. MERCED	139	1.3	67	1.3
25. MODOC	38	0.4	19	0.4
26. MONO	15	0.1	7	0.1
27. MONTEREY	158	1.5	71	1.4
28. NAPA	73	0.7	33	0.7
29. NEVADA	55	0.5	25	0.5
30. ORANGE	256	2.5	121	2.4
31. PLACER	87	0.8	38	0.8
32. PLUMAS	23	0.2	12	0.2
33. RIVERSIDE	147	1.4	74	1.5
34. SACRAMENTO	628	6.0	307	6.1
35. SAN BENITO	32	0.3	17	0.3
36. SAN BERNARDINO	222	2.1	119	2.3
37. SAN DIEGO	408	3.9	184	3.6
38. SAN FRANCISCO	270	2.6	140	2.8
39. SAN JOAQUIN	260	2.5	131	2.6
40. SAN LUIS OBISPO	123	1.2	55	1.1
41. SAN MATEO	283	2.7	152	3.0
42. SANTA BARBARA	136	1.3	61	1.2
43. SANTA CLARA	361	3.5	178	3.5
44. SANTA CRUZ	92	0.9	39	0.8
45. SHASTA	218	2.1	102	2.0
46. SIERRA	3	TRACE	3	0.1
47. SISKIYOU	178	1.7	90	1.8
48. SOLANO	171	1.6	88	1.7
49. SONOMA	201	1.9	76	1.5
50. STANISLAUS	212	2.0	113	2.2
51. SUTTER	84	0.8	47	0.9
52. TEHAMA	96	0.9	41	0.8
53. TRINITY	37	0.4	20	0.4
54. TULARE	222	2.1	83	1.6
55. TUOLUMNE	42	0.4	15	0.3
56. VENTURA	111	1.1	50	1.0
57. YOLO	142	1.4	73	1.4
58. YUBA	77	0.7	28	0.6
OUT OF STATE	13	0.1	9	0.2
TOTAL	<u>10,461</u>	<u>100.0</u>	<u>5,036</u>	<u>100.0</u>

TABLE II

SUMMARY OF STATEWIDE GAME BAG 1959

<u>Species</u>	<u>1958</u>	<u>1959</u>	<u>% Change from 1958</u>
Pheasants	704,400	641,200	- 9.0
Quail	1,939,800	1,483,400	- 23.5
Doves	3,399,100	3,577,900	+ 5.3
Chukar Partridges	28,600	50,100	+ 75.2
Sage Grouse (Sage Hens)	4,500	7,800	+ 73.3
Sierra and Ruffed Grouse	3,000	1,800	- 40.0
Band-tailed Pigeons	195,200	156,700	- 19.7
Jackrabbits	1,469,200	1,132,500	- 22.9
Cottontail or Brush Rabbits	645,400	510,600	- 20.9
Tree Squirrels	67,500	66,600	- 1.3
Geese	379,200	257,400	- 32.1
Ducks	4,610,300	1,912,300	- 58.5
Jack Snipes	67,900	49,000	- 27.8
Coots	505,900	301,900	- 40.3
Buck Deer (Tag Count)	58,669	73,483	+ 25.3
Bears (Tag Count)	653	1,016	+ 55.6
Wild Boars	100	400	+300.0

TABLE III
 GAME BAG - 1959
 (TEN LEADING COUNTIES)

PHEASANTS			JACKRABBITS		
	% OF STATE TOTAL	POSITION 1958		% OF STATE TOTAL	POSITION 1958
1. SUTTER	10.7	3	1. KERN	8.1	1
2. BUTTE	8.3	1	2. RIVERSIDE	7.6	5
3. COLUSA	7.9	2	3. FRESNO	7.5	6
4. SACRAMENTO	7.0	5	4. MADERA	7.2	30
5. FRESNO	6.6	6	5. SAN JOAQUIN	5.9	10
6. YOLO	6.3	4	6. SAN BERNARDINO	4.9	11
7. RIVERSIDE	4.4	22	7. SACRAMENTO	4.7	13
8. SAN JOAQUIN	4.2	9	8. YOLO	4.4	7
9. MERCED	4.1	8	9. LOS ANGELES	4.0	2
10. STANISLAUS	3.9	7	10. MERCED	3.6	8
ALL OTHERS	36.6		ALL OTHERS	42.1	
TOTAL	100.0		TOTAL	100.0	

QUAIL			RABBITS (COTTONTAIL AND BRUSH)		
	% OF STATE TOTAL	POSITION 1958		% OF STATE TOTAL	POSITION 1958
1. SAN DIEGO	6.5	3	1. RIVERSIDE	19.9	1
2. RIVERSIDE	6.3	1	2. SAN DIEGO	18.2	2
3. KERN	6.3	2	3. SAN BERNARDINO	10.8	5
4. FRESNO	6.3	4	4. LOS ANGELES	7.4	4
5. IMPERIAL	4.3	6	5. KERN	6.9	3
6. TULARE	4.2	5	6. ORANGE	4.1	10
7. SAN BERNARDINO	4.0	10	7. LASSEN	3.3	7
8. MODOC	3.8	16	8. FRESNO	3.3	12
9. SHASTA	2.9	7	9. MONTEREY	2.6	8
10. LOS ANGELES	2.8	6	10. VENTURA	2.5	6
ALL OTHERS	52.6		ALL OTHERS	21.0	
TOTAL	100.0		TOTAL	100.0	

DOVES			GEESE		
	% OF STATE TOTAL	POSITION 1958		% OF STATE TOTAL	POSITION 1958
1. IMPERIAL	12.3	1	1. SISKIYOU	19.2	2
2. FRESNO	9.1	2	2. COLUSA	19.0	3
3. TULARE	6.7	4	3. MODOC	13.8	5
4. RIVERSIDE	5.6	3	4. BUTTE	7.0	4
5. KERN	3.8	5	5. LASSEN	5.9	7
6. SAN JOAQUIN	3.7	9	6. GLENN	5.8	1
7. MERCED	3.4	6	7. SUTTER	4.4	8
8. SAN DIEGO	3.2	8	8. YUBA	3.8	19
9. STANISLAUS	3.1	7	9. MERCED	3.3	6
10. SAN BERNARDINO	3.0	11	10. YOLO	3.1	9
ALL OTHERS	46.1		ALL OTHERS	14.7	
TOTAL	100.0		TOTAL	100.0	

BAND-TAILED PIGEONS			DUCKS		
	% OF STATE TOTAL	POSITION 1958		% OF STATE TOTAL	POSITION 1958
1. SAN LUIS OBISPO	14.1	5	1. MERCED	14.2	1
2. MONTEREY	13.3	8	2. SOLANO	9.9	3
3. SANTA BARBARA	10.8	21	3. SUTTER	7.5	8
4. SHASTA	7.7	17	4. COLUSA	7.3	2
5. SAN DIEGO	5.6	4	5. SISKIYOU	5.4	4
6. SISKIYOU	4.0	22	6. HUMBOLDT	4.6	12
7. SANTA CRUZ	3.9	6	7. IMPERIAL	4.5	6
8. TULARE	3.8	2	8. BUTTE	3.9	5
9. SONOMA	3.6	18	9. YUBA	3.4	14
10. TRINITY	3.1	-	10. GLENN	1.9	9
ALL OTHERS	30.1		ALL OTHERS	37.4	
TOTAL	100.0		TOTAL	100.0	

TABLE IV

HUNTING PREFERENCES AS INDICATED BY REPORTED NUMBER OF HUNTERS

(Based Upon Total Respondents Who Indicated Hunting Effort)

<u>Species</u>	<u>Successful</u>	<u>Unsuccessful</u>	<u>Total</u>	<u>Percent of</u>
	<u>Hunters</u>	<u>Hunters</u>	<u>Hunters</u>	<u>Total Hunters</u>
	<u>Number</u>	<u>Number</u>	<u>Number</u>	<u>Percent</u>
Deer	110,300	277,500	387,800	26.6
Pheasants	147,000	65,000	212,000	14.5
Doves	177,500	7,700	185,200	12.7
Quail	132,400	28,100	160,500	11.0
Ducks	119,900	26,100	146,000	10.0
Jackrabbits	90,200	7,700	97,900	6.7
Cottontail and Brush Rabbits	68,600	5,700	74,300	5.1
Geese	49,700	16,200	65,900	4.5
Band-tailed Pigeons	20,400	6,400	26,800	1.8
Bear	1,400	21,300	22,700	1.6
Tree Squirrels	18,200	4,300	22,500	1.5
Coots	17,500	1,300	18,800	1.3
Chukar	8,500	9,400	17,900	1.2
Jacksnipes	7,300	800	8,100	0.6
Sage Grouse	4,500	2,300	6,800	0.5
Sierra and Ruffed Grouse	800	1,600	2,400	0.2
Boar	400	2,400	2,800	0.2
				<u>100.0</u>

TABLE V

MAJOR GAME SPECIES BAG - 1959
BY ADMINISTRATIVE REGION

<u>Species</u>	Region I	Region II	Region III	Region IV	Region V
	<u>% of State Bag</u>	<u>% of State Bag</u>	<u>% of State Bag</u>	<u>% of State Bag</u>	<u>% of State Bag</u>
Pheasants	4.8	55.3	6.2	21.0	12.7
Quail	14.8	17.1	13.3	23.7	31.1
Doves	5.3	21.4	9.6	30.5	33.2
Jackrabbits	9.7	27.3	6.5	32.9	23.6
Cottontail or Brush Rabbits	5.2	3.8	9.0	14.4	67.6
Ducks	17.1	39.8	7.3	23.0	12.8

TABLE VI

REPORTED TOTAL TAGS AND STAMPS PURCHASED - 1959

	<u>Questionnaire Respondents</u>	<u>Reported by Lic. Sec. D.F.G. and U.S. F.W.S.</u>	<u>Difference</u>	<u>Percent Diff. From Questionnaire</u>
	<u>Number</u>	<u>Number</u>	<u>Number</u>	<u>Percent</u>
Duck Stamps	175,100	120,800 (est)	+ 54,300	+ 31.0
Deer Tags	419,900	398,700 (est)	+ 21,200	+ 5.0
Pheasant Tags	219,700	188,800 (est)	+ 30,900	+ 14.1
Bear Tags	37,300	26,000 (est)	+ 11,300	+ 30.3

TABLE VII

HUNTER INTEREST AS INDICATED BY THE PURCHASE OF TAGS AND STAMPS
AND THE COMBINATIONS THEREOF - 1959

(Percent based on number of respondents reporting tag and stamp purchases)

<u>One Tag Only</u>	<u>%</u>	<u>Two Tags Only</u>	<u>%</u>	<u>Three Tags Only</u>	<u>%</u>	<u>Four Tags Only</u>	<u>%</u>
Deer Tags	42.2	Deer and Pheasant	12.2	Duck, Deer and Pheasant	11.4	Duck, Deer Pheasant and Bear	1.4
Pheasant Tags	7.8	Duck and Pheasant	7.2	Deer, Pheasant and Bear	1.3		
Duck Stamps	5.7	Duck and Deer	6.5	Duck, Deer and Bear	0.7		
Bear Tags	0.1	Deer and Bear	3.4	Duck, Pheasant and Bear	0.1		

TABLE VIII

DISTRIBUTION OF PHEASANT HUNTERS BY TYPE OF HUNTING AREA

The following abbreviations are used in this table:

1. Co-op (State Operated Cooperative Pheasant Hunting Areas.)
2. Community (Community Operated or Pheasant Association Areas.)
3. Lic. Pheas. Club (Licensed Pheasant Clubs.)
4. W.M.A. (State or Federal Waterfowl Management Areas.)
5. Other (Unmanaged Public and Private Lands Open to Pheasant Hunting.)

Hunters Using One Area Only	<u>Number</u>	<u>Percent</u>
1. Other	104,000	52.0
2. Co-op	27,800	13.9
3. Community	15,600	7.8
4. Lic. Pheas. Club	14,600	7.3
5. W.M.A.	<u>5,700</u>	<u>2.9</u>
<u>Subtotal</u>	167,700	83.9
Hunters Using More Than One Area	<u>32,200</u>	<u>16.1</u>
<u>Total Hunters With Area Indicated</u>	199,900	100.0
Hunting Area Not Indicated	<u>12,100</u>	
<u>GRAND TOTAL ALL HUNTERS</u>	212,000	

Total Individual Area Hunter Use

1. Other	127,700	54.8
2. Co-op	46,200	19.8
3. Community	26,600	11.4
4. Lic. Pheas. Club	21,900	9.4
5. W.M.A.	<u>10,700</u>	<u>4.6</u>
<u>*TOTAL</u>	233,100	100.0

*Due to duplication of pheasant hunting effort this total exceeds the actual number of pheasant hunters reported.