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**Table 20.01-- FOREST AND NATURAL AREA ACREAGE, BY ISLANDS:  
JUNE 30, 2002**

Island	Conservation district forest land		Natural areas 3/	
	Forest reserve land 1/	Private forest land 2/	Number of areas	Acres
2002				
State total	643,134	328,742	19	109,164
Hawaii	438,416	106,745	8	82,535
Maui	73,227	53,180	4	17,123
Kahoolawe	-	-	-	-
Lanai	-	6,150	-	-
Molokai	16,030	-	2	2,950
Oahu	32,462	88,817	3	1,770
Kauai	82,999	73,850	2	4,786
Niihau	-	-	-	-

Note: data have remain constant since 1996.

1/ State-owned and privately-owned lands under surrender agreement in forest reserve system.

2/ Private forest land within conservation district. The majority of these lands were previously in the forest reserve system.

3/ Includes Waimanu Research Reserve (3,600 acres) and Alakai Wilderness Preserve (9,939 acres).

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

**Table 20.02-- WOODLAND ON FARMS, 1987 TO 1997, AND BY COUNTIES, 1997**

[Acres]

Use	1987	1992	1997				
			State total	Hawaii	Maui	Honolulu	Kauai
Total	99,135	109,391	108,704	75,821	(D)	209	(D)
Pastured	27,517	40,909	31,844	14,645	(D)	-	(D)
Not pastured	71,618	68,482	76,860	61,176	(D)	20	(D)

D Withheld to avoid disclosing data for individual farms.

Source: U.S. Bureau of the Census, *1997 Census of Agriculture, Hawaii*, AC97-A-11 (March 1999), pp. 19 and 158.

**Table 20.03-- FOREST AND BRUSHLAND FIRES, BY COUNTIES:  
2000 TO 2002**

[Years ended June 30]

County	Number of Fires			Acres burned		
	2000	2001	2002	2000	2001	2002
State total	107	116	191	22,483	288	2,383
Hawaii	71	48	148	21,031	88	224
Maui	11	53	33	319	103	278
Honolulu	12	12	7	1,100	97	1,875
Kauai	13	3	3	33	1	6

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

**Table 20.04-- FOREST AND BRUSHLAND FIRES, BY CAUSE OF FIRE:  
2000 TO 2002**

County	Number of Fires			Acres burned		
	2000	2001	2002	2000	2001	2002
State total	125	108	191	2,931.3	1,080.3	2,383.4
Lighting	1	-	1	2.0	-	0.1
Campfire	3	8	9	0.3	6.3	0.8
Smoking	13	13	13	9.7	16.3	28.7
Debris burning	22	7	23	241.7	17.7	9.0
Arson	18	13	16	74.1	117.6	139.4
Equipment	11	5	7	2,197.6	61.5	0.7
Railroads	-	-	-	-	-	-
Children	13	3	5	12.7	11.6	1.8
Miscellaneous	44	59	117	393.2	849.3	2,202.9

Source: Hawaii State Department of Land and Natural Resources, Division of Forestry and Wildlife, records.

**Table 20.05-- COMMERCIAL FISHING: 1989 TO 2002**

[Years ended June 30]

Year	Number of commercial fishermen	Commercial fish catch 1/		
		Pounds landed	Pounds sold	Value to primary producers (dollars)
1989	3,491	14,008,279	13,524,731	29,815,290
1990	3,551	16,663,945	16,090,478	39,902,182
1991	4,043	22,218,099	21,331,184	53,769,946
1992	3,800	23,578,601	22,761,039	55,381,574
1993	3,836	25,209,513	24,562,796	61,059,027
1994	4,060	24,028,693	23,310,535	57,999,092
1995	3,827	23,970,722	22,945,408	55,283,593
1996	3,672	23,968,916	23,018,189	52,443,466
1997	3,632	25,319,795	24,589,553	53,343,330
1998	3,648	26,191,724	25,264,158	55,854,728
1999	3,796	26,874,045	25,845,545	54,848,585
2000	3,898	26,844,548	26,064,726	60,473,528
2001 2/ 3/	3,465	21,150,892	20,355,033	45,546,327
2002 2/	3,081	21,270,643	20,543,297	44,852,187

1/ Represents the total catches of all licensed commercial fishers. Includes both sea and pond catches.

2/ Figures for 2001-2002, excludes pond catches. Omitted to avoid disclosure of individual operators.

3/ Revised from previous Data Book.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings for Fiscal Year* (annual), as revised, and records.

**Table 20.06-- COMMERCIAL FISH CATCH, BY SPECIES: 2001**

[Revised from previous year databook. Year ended June 30, 2001]

Species	Pounds caught	Pounds sold	Value (dollars)
Total catch	21,146,568	20,350,709	45,538,222
Sea catch, all species	21,146,568	20,350,709	45,538,222
Tunas	13,198,223	12,946,650	31,177,617
Aku (Skipjack)	1,526,863	1,444,271	1,832,121
Tombo	2,772,728	2,760,687	3,320,280
Bigeye (ahi)	4,374,889	4,338,299	14,808,759
Yellowfin (ahi)	4,510,636	4,394,202	11,201,007
Billfishes	2,468,444	2,318,190	4,094,255
Blue marlin	975,060	868,571	953,243
Shortnose spearfish	272,653	255,533	243,261
Striped marlin	558,760	534,220	786,172
Swordfish	632,927	632,554	2,081,041
Miscellaneous pelagic species	3,051,526	2,871,235	5,128,815
Mahimahi	1,256,092	1,170,731	2,185,145
Monchong	187,038	186,312	323,051
Ono	918,490	826,134	1,586,582
Opah	572,251	572,036	848,777
Deep bottom fishes	632,970	574,080	2,099,794
Ehu	38,776	35,359	136,615
Hapuupuu	41,461	39,374	139,706
Opakapaka	198,752	187,472	794,557
Uku	112,233	106,933	271,573
Ulaula (onaga)	128,299	121,258	602,622
Akule/opelu	1,210,849	1,112,186	1,776,481
Akule	939,574	850,684	1,308,774
Opelu	254,727	245,752	439,549
Jacks	87,324	73,984	133,529
Inshore fishes	261,312	247,600	519,251
Sharks	122,685	118,325	112,294
Lobsters	8,715	7,764	89,980
Spiny	8,601	7,657	88,969
Slipper	114	107	1,011
Crabs	19,652	15,640	57,025
Shrimps	6,436	6,395	53,266
Seaweeds	14,655	13,671	38,816
Miscellaneous	63,777	44,989	257,096
Pond landings, all species	(D)	(D)	(D)

(D) Data omitted due to low level of fishermen reporting and to preserve confidentiality.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings, State of Hawaii—Fiscal Years 2001* and records.

**Table 20.07-- COMMERCIAL FISH CATCH, BY SPECIES: 2002**

[Year ended June 30, 2002]

Species	Pounds caught	Pounds sold	Value (dollars)
Total catch	21,263,291	20,535,945	44,833,829
Sea catch, all species	21,263,291	20,535,945	44,833,829
Tunas	13,549,469	13,350,093	32,308,756
Aku (Skipjack)	1,143,130	1,069,358	1,409,109
Tombo	1,938,809	1,931,269	2,359,261
Bigeye (ahi)	6,848,066	6,810,073	20,743,458
Yellowfin (ahi)	3,603,850	3,526,597	7,778,258
Billfishes	2,765,159	2,547,068	3,374,550
Blue marlin	1,259,084	1,082,585	1,034,549
Shortnose spearfish	251,440	241,338	196,843
Striped marlin	822,603	792,869	965,231
Swordfish	403,939	403,544	1,152,066
Miscellaneous pelagic species	3,065,371	2,916,586	5,006,010
Mahimahi	1,080,343	991,685	1,907,748
Monchong	353,161	352,839	481,666
Ono	705,150	647,336	1,397,089
Opah	743,400	743,077	980,894
Deep bottom fishes	524,491	477,855	1,839,866
Ehu	30,812	27,981	106,635
Hapuupuu	31,429	29,747	122,643
Opakapaka	124,415	117,189	574,477
Uku	123,525	116,507	286,429
Ulaula (onaga)	130,881	123,989	622,676
Akule/opelu	741,915	684,459	1,160,444
Akule	470,941	432,104	713,764
Opelu	210,805	199,820	371,997
Jacks	69,856	58,436	104,158
Inshore fishes	277,577	262,843	590,942
Sharks	174,908	166,535	92,488
Lobsters	9,871	9,126	112,999
Spiny	9,815	9,106	112,817
Slipper	56	20	182
Crabs	15,533	11,813	51,831
Shrimps	5,079	5,032	39,149
Seaweeds	11,896	10,749	40,966
Miscellaneous	52,166	35,350	111,669
Pond landings, all species	(D)	(D)	(D)

(D) Data omitted due to low level of fishermen reporting and to preserve confidentiality.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings, State of Hawaii—Fiscal Years 2002* and records.



**Table 20.08-- COMMERCIAL SEA LANDINGS, BY ISLANDS: 2001 AND 2002**

[Years ended June 30]

Island	Pounds landed	Pounds sold	Value (dollars)
2001 1/			
State total	21,146,568	20,350,709	45,538,222
Hawaii	2,949,525	2,740,130	5,463,221
Maui	531,475	401,895	1,272,659
Lanai	17,186	13,452	32,803
Molokai	32,659	26,329	108,292
Oahu	16,897,255	16,563,341	37,079,475
Kauai and Niihau	718,468	605,562	1,581,772
2002			
State total	21,263,291	20,535,945	44,833,829
Hawaii	3,116,854	2,868,840	4,981,933
Maui	429,899	321,086	1,018,849
Lanai	13,036	9,531	24,683
Molokai	24,246	17,962	73,531
Oahu	17,146,560	16,886,966	37,632,735
Kauai and Niihau	532,696	431,560	1,102,097

1/ Revised from previous year Data Book.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, records.

**Table 20.09-- COMMERCIAL SEA LANDINGS, BY FISHING METHOD:  
2001 AND 2002**

[Years ended June 30]

<b>Fishing method</b>	<b>Pounds landed</b>	<b>Pounds sold</b>	<b>Value (dollars)</b>
2001 1/			
All methods	21,146,568	20,350,709	45,538,222
Aku pole and line	978,315	965,691	1,408,438
Longline	12,672,461	12,652,478	29,792,662
Handline	3,459,657	3,302,929	7,546,743
Trolling	2,808,312	2,313,719	4,737,209
Net	1,052,667	964,009	1,461,018
Trap	52,041	51,337	141,282
All other methods	123,115	100,546	450,870
2002			
All methods	21,263,291	20,535,945	44,833,829
Aku pole and line	791,728	789,884	1,111,447
Longline	14,093,382	14,081,260	32,501,565
Handline	3,165,782	3,016,687	6,140,247
Trolling	2,382,569	1,886,680	3,587,556
Net	690,460	640,766	1,051,995
Trap	38,355	38,246	108,233
All other methods	101,015	82,422	332,786

1/ Revised from previous year Data Book.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Commercial Fish Landings, State of Hawaii--Fiscal Years 2001-2002* and records.

**Table 20.10-- FISH POPULATIONS AROUND SELECTED SHORELINE  
AREAS: YEAR ENDED JUNE 30, 2001**

Location	Species	Fish per acre	Pounds per acre
Marine Life Conservation Districts:			
Hanauma Bay, Oahu:			
Inshore	59	3,067	1,473
Offshore	87	3,166	943
Pupukea, Oahu	89	8,123	1,717
Waikiki, Oahu	42	1,230	246
Molokini Shoal, Maui	58	4,234	623
Honolua-Mokuleia Bay, Maui	37	5,190	682
Manele-Hulopoe Bays, Lanai	62	7,462	1,368
Kealakekua Bay, Hawaii	43	2,138	274
Lapakahi, Hawaii	41	2,617	118
Wailea Bay, Hawaii	41	1,976	255
Old Kona Airport, Hawaii	19	2,003	208
Artificial reefs:			
Maunalua Bay Tire Reef, Oahu	32	5,056	810
Maunalua Bay "Cee Bee 24 Barge," Oahu	45	2,821	321
Maunalua Bay "Mud Scow Barge," Oahu	39	3,906	273
Maunalua Bay "Keehi Barge," Oahu	39	5,148	525
Maunalua Bay "Landing Craft," Oahu	25	833	82
Waianae "Z-Slabs," Oahu	34	1,368	155
Waianae "Landing Craft," Oahu	27	1,098	135
Waianae "Mahi," Oahu	42	7,227	881
Keawakapu Tire Reef, Maui	(NA)	3,814	540
Fisheries Management Areas:			
Waikiki-Diamond Head, Oahu 1/	44	461	56
Waikiki-Diamond Head, Oahu 2/	66	1,304	217
Puako Bay and Pualo Reef, Hawaii	34	1,973	336
Red Hill, Hawaii	29	5,017	184
Kiholo Bay, Hawaii	36	2,091	200
Papawai Bay, Hawaii	34	4,957	449
Other areas:			
Honaunau Bay	28	1,588	167

1/ Survey taken on December 28, 2000, during the open fishing period.

2/ Survey taken on June 25, 2001, during the closed fishing period.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Statewide Marine Research and Surveys, Survey of Fish and Habitat, July 1, 2000 to June 30, 2001*.

**Table 20.11-- MOST ABUNDANT AND HEAVIEST FISH SPECIES AT SPECIFIED LOCATIONS: YEAR ENDED JUNE 30, 2001**

[Three leading species at each location, based on both individuals per acre and pounds per acre]

Location and species	Individuals per acre		Pounds per acre	
	Rank	Number	Rank	Number
Hanauma Bay MLCD (inshore):				
Manini ( <i>Acanthurus triostegus</i> )	1	958	3	137
Yellow-eye damsel ( <i>Eupomacentrus fasciolatus</i> )	2	221	(1/)	(NA)
Aholehole ( <i>Kuhlia sandvicensis</i> )	3	203	9	48
Redlipped parrot ( <i>Scarus rubroviolaceus</i> )	(1/)	(NA)	1	414
Clown tang ( <i>Naso lituratus</i> )	10	78	2	212
Honolua-Mokuleia Bay MLCD:				
Maiii/lavender tang ( <i>Acanthurus nigrofuscus</i> )	1	1,416	1	127
Saddle-back wrasse ( <i>Thalassoma duperrey</i> )	2	1,325	4	54
Kole ( <i>Ctenochaetus strigosus</i> )	3	647	3	92
Clown tang ( <i>Naso lituratus</i> )	(1/)	(NA)	2	102
Kealakekua Bay MLCD:				
Kole ( <i>Ctenochaetus strigosus</i> )	1	303	6	15
Agile damsel ( <i>Chromis agilis</i> )	2	283	3	30
Blackfin damsel ( <i>Chromis vanderbilti</i> )	3	277	(1/)	(NA)
Yellow tang ( <i>Zebrasoma flavescens</i> )	4	277	1	34
Parrotfishes (Family Scaridae)	(1/)	(NA)	2	33

NA Not available.

MLCD Marine Life Conservation District.

1/ Not in first 10.

Source: Hawaii State Department of Land and Natural Resources, Division of Aquatic Resources, *Statewide Marine Research and Surveys, Survey of Fish and Habitat, July 1, 2000 to June 30, 2001.*

**Table 20.12-- MINERAL INDUSTRIES: 1972 TO 1997**

<b>Subject</b>	<b>1972</b>	<b>1977</b>	<b>1982</b>	<b>1987</b>	<b>1992</b>	<b>1997</b>
Number of establishments	15	7	12	9	7	7
With 20 employees or more	5	2	4	4	4	2
All employees:						
Number (1,000)	.3	.1	.2	.2	.2	.1
Payroll (million dollars)	2.4	1.9	3.8	7.4	9.4	5.6
Production, development, and exploration workers:						
Number (1,000)	.2	.1	.1	.2	.2	.1
Hours (millions)	.4	.2	.2	.4	.4	.2
Wages (million dollars)	1.8	1.5	2.6	5.7	8.1	4.7
Value added by mining (million dollars)	9.0	8.1	9.7	23.5	27.3	22.0
Cost of supplies used, purchased machinery installed, etc. (million dollars)	4.1	2.9	5.9	10.4	11.3	(D)
Value of shipments and receipts (million dollars)	11.0	9.7	12.8	31.1	33.7	33.3
Capital expenditures (million dollars)	2.0	1.3	2.7	2.8	4.8	(D)

D Withheld to avoid disclosing data for individual companies.

Source: U.S. Census Bureau, *1987 Census of Mineral Industries, Geographic Area Series, Pacific States*, MIC87-A-9 (October 1990), Hawaii table 1; *1992 Census of Mineral Industries, Geographic Area Series, Pacific States*, MIC92-A-9 (May 1996), Hawaii table 1; *1997 Economic Census, Mining, Geographic Area Series, Hawaii*, EC97N21A-HI (May 2000), table 1.

**Table 20.13-- NONFUEL MINERAL PRODUCTION: 1999 TO 2001**

[Estimated production as measured by mine shipments, sales, or marketable production, including consumption by producers, Data are rounded to three significant digits; may not add to totals shown]

<b>Minerals</b>	<b>1999</b>	<b>2000 1/</b>	<b>2001 2/</b>
QUANTITY (1,000 METRIC TONS)			
Cement:			
Masonry	3	3	3
Portland	254	286	110
Gemstones	(NA)	(NA)	(NA)
Sand and gravel (construction)	508	607	650
Stone (crushed)	5,870	5,770	5,000
VALUE (\$1,000)			
Total	86,400	92,000	69,700
Cement:			
Masonry 3/	298	645	600
Portland 3/	24,700	26,800	10,200
Gemstones	55	(4/)	77
Sand and gravel (construction)	5,840	6,420	6,970
Stone (crushed)	55,500	58,100	51,900

NA Not available.

1/ Revised.

2/ Preliminary.

3/ For 1999 to 2001, data have been estimated.

4/ Value excluded to avoid disclosing company proprietary data.

Source: U.S. Geological Survey, Bureau of Mines, "The *Mineral Industry of Hawaii*"

<<http://minerals.er.usgs.gov/minerals/pubs/state/hi.html>>.