

The Trade in Diurnal Birds of Prey in Mexico

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INTRODUCTION

Owing to its intermediate position between the Nearctic and Neotropical zoogeographic regions, Mexico has a very high diversity of diurnal birds of prey (Inigo 1984). Both migratory and resident species include 5 Cathartidae, 1 Pandionidae, 37 Accipitridae and 13 Falconidae, totalling 56 species with 95 geographic races. Of these, however, Polyborus lutosus (Guadalupe Caracara) is now extinct, and Gymnogyps californianus (California Condor) is considered to be extinct in Mexico. In addition, 27 more species are now in danger of extinction, and this number is increasing owing to indirect pressures such as natural habitat destruction, urban pollution and pesticide residues, and direct pressures such as persecution by farmers and, in recent years, the pet or falconry trade (Inigo 1983; Ramos 1985; Subsec. Forestal y de la Fauna 1982). These factors, combined with the indifference of the Mexican government, threaten the future of this group of birds in Mexico. This paper assesses the extent of the trade in raptors in Mexico; however, it is very difficult to estimate its true impact on these birds.

METHODS

Between June 1983 and June 1985 (June, July, Sept.-Dec. 1983; Jan.-June and Dec. 1984; April-June 1985) 16 samples (approximately one per month) were taken in Sonora Market, Mexico City, where raptors are sold illegally. I ascertained the number of stands involved, their sources of supply, the species traded, the number of birds sold, and whether these were chicks or old enough to fly (flying). I noted species fluctuation during the study period, as well as the average price of each species.

I obtained three sets of data during 1980 and three more in 1983 on the "Huizache" junction in San Luis Potosí state (or Matehuala), the principal zone where raptors are captured and traded. There I analysed the number of species, capture technique and other aspects of this trade. I also obtained data on raptors by the last Dirección General de Flora y Fauna Silvestres (now Dirección General de Conservación Ecológica de los Recursos Naturales) on falconry training during 1984.

I further examined the figures of falconiforms exported from Mexico to the U.S.A. 1980-1982, including live and dead specimens for commercial and private purposes.

I also obtained information about Mexican raptors "legally" exported or smuggled to Europe and Arab countries.

RESULTS

A) Legal Situation

The Mexican law, "Ley Federal de Caza", of 1952 protects migratory species included in international treaties, e.g. Falco sparverius (American Kestrel) (Diario oficial 1952; SEDUE, Secretaría de Desarrollo Urbano y Ecología, 1983). This same law covers the appropriation of prohibited species and capture of predatory animals with unauthorized traps. Each year the Federal government publishes the "Acuerdo sobre el calendario de captura y aprovechamiento de aves canoras y de ornato". From the first publication (1970-1980) to the last (1984-1985), diurnal birds of prey cannot be legally traded (Subsec. Forestal y de la Fauna 1979; SEDUE 1984a).

Another agreement published each year is the "Calendario cinegetico para la Republica Mexicana". The 1984-1985 edition states that no-one can hunt, trap, attack, possess, transport, sell or buy live specimens or parts of endangered wildlife, including 10 species of raptors, e.g. Polyborus plancus (Common Caracara) (SEDUE 1984b).

Mexico is not a signatory of CITES, but four species that occur in the country (Gymnogyps californianus, Haliaeetus leucocephalus, Harpia harpyja and Falco peregrinus) are listed in Appendix I of this convention (Nilsson 1983).

B) Commercialisation

Sonora Market is situated in the centre of Mexico City. Here, 11 stands continually sell raptors, and 20 others do so at times. The supply of birds is irregular; on some days the dealers buy directly from trappers in Mexico City, while at other times they buy birds in the actual capture areas such as "Huizache", in San Luis Potosi. The average time it takes for birds to reach the market is 15 days, but this can also take only eight days.

During this study I found 644 individuals representing 15 species of falconiforms involved in the traffic.

Trade in chicks occurs between April and October, whilst flying or fledged birds are available throughout the year. The months with the most trade were June 1984 and May 1985, each with 52 individuals, and the months with most flying birds traded were October 1983 (with 54 individuals) and December 1984 (with 87). The species most involved at the chick stage was Parabuteo unicinctus (Harris' Hawk), comprising 70.3% of the total (n=145), and the least involved was Buteo albonotatus (Zone-tailed Hawk) with 0.15% (n=1). Within this traffic the most traded in adult or flying stage was Falco sparverius, comprising 58.4% (n=256) and, in the same category, the least was Falco rufigularis (Bat Falcon), with 0.31% (n=2) (Table 1).

In every month of the study I invariably found Parabuteo unicinctus, while the second most observed species was Falco sparverius, represented in 14 of the 16 months sampled, and absent only in April 1984 and May 1985. The third most frequent was Buteo jamaicensis (Red-tailed Hawk), represented in 11 months and absent only between June and November 1983 (Fig. 1). Overall, Falco sparverius was the most traded species, with 256 individuals and a mean (\bar{x}) of 16 individuals per month; the second was Parabuteo unicinctus with 215 individuals and mean (\bar{x}) 13.4 individuals per month, and the least traded was Buteo albonotatus with one specimen. The months

with the most captures of Falco sparverius were October 1983, with 51 individuals, and December 1984, with 70 individuals (Fig. 2). The month with most captures of the second most traded species, Parabuteo unicinctus, was June 1984, with 47 individuals (Fig. 3).

The price of one Falco sparverius in June 1985 was 9 U.S. dollars, and for one Buteo unicinctus 23.50 U.S. dollars in Sonora Market. I found irregular variations in the prices depending on species, size, age, and season of the year. Also this varied among dealers.

The other place I studied was "Huizache" junction, over National Highway 57 near its junction with Highway 80 in San Luis Potosi, between parallels 22°N and the Tropic of Cancer (23°, 27') and meridian 100° and 102°W. At a distance of up to 5 km from "Huizache" junction toward San Luis Potosi city, there are more than 20 stands for selling wildlife, including raptors, each attended by one family of "campesinos" (farmers). During six visits to "Huizache" I recorded 408 individuals of eight species. Parabuteo unicinctus was the species most traded at the chick stage, comprising 43.6% of the total (n=47). The least represented was Aquila chrysaetos (Golden Eagle), comprising 1.8% (n=2). The most traded flying individuals were Falco sparverius, comprising 49% of the total (n=147) and the least were Buteo nitidus (Grey Hawk) and Falco mexicanus (Prairie Falcon), both comprising 0.3% (n=1).

Table 2 summarizes chicks, flying individuals and totals for each species. I observed that Falco sparverius was the most captured with 171 individuals and mean (\bar{x}) of 28.5 per month; and the second was Parabuteo unicinctus with 125 individuals and mean (\bar{x}) of 20.8 per month. The two least traded were Buteo nitidus and Falco mexicanus, each with one individual and mean (\bar{x}) of 0.16 per month.

In this place the people use three capture techniques for falconiforms. In one, they simply take chicks from the nest, ranging from five days old to those with almost completely developed plumage. The second technique used is clap traps. These are placed most frequently on roosting places such as fence poles and incur talon mutilations, broken legs and even death. The third method is the harness box or "bal-chatri", whereby most of the Falco sparverius are caught, especially in winter.

In 1984 the Dirección General de la Flora y Fauna Silvestres de Mexico registered for falconry use 161 diurnal birds of prey of nine species (D.G.F.F.S. 1985). Parabuteo unicinctus was the most recorded, comprising 72.6% (n=177) of the total, and the second was Buteo jamaicensis, comprising 21.1% (n=34).

The U.S. Convention on International Trade in Endangered Species (CITES) report indicated that the U.S.A. imported 95 examples of diurnal birds of prey from Mexico between 1980 and 1982, including live or dead individuals for private and commercial purposes (Nilsson, pers. comm.; U.S. CITES Reports, 1980-1982). Here the three most traded species were Buteo jamaicensis, with 33 individuals, and Falco sparverius and F. peregrinus, with 18 individuals each (Table 3).

The traffic in Mexican raptors to Europe and Arab countries is significant, but very few data exist on this; Inskipp (1975) states that the United Kingdom imported 1,111 diurnal birds of prey and, in transit, 2,166 birds from 23 species from South America, India, Pakistan, Africa and Thailand during 1970-74. Inskipp and Thomas (1976) report that the United Kingdom

imported 94 diurnal birds of prey licensed from eight countries during January to June 1976. These two reports do not specify how many were from Mexico.

During the last months of 1984 one smuggled shipment of 16 Falco peregrinus, exported with "legal" papers from Mexico, was intercepted by the Dutch authorities (Nilsson, pers. comm.; SEDUE 1985) on its way to an Arab country.

DISCUSSION

At least 23 species, or 41 % of Mexican falconiforms, are involved in the pet trade. Relatively abundant species, such as Falco sparverius, Parabuteo unicinctus and Buteo magnirostris are the most heavily traded species. Nevertheless, uncommon and rare species with declining populations are also traded, including Falco peregrinus and Accipiter cooperii (Cooper's Hawk). I also found trade in species with few falconry training possibilities, including Elanus caeruleus (Black-shouldered Kite), Herpetotheres cachinnans (Laughing Falcon) and Polyborus plancus. The latter species is now uncommon to rare in most of the country; moreover its population is thought to be declining (Phillips pers. comm.). Species most involved in the trade are those common along roads or in open areas. Forest species are less affected because they are difficult to find.

Mexico has good laws for wildlife conservation and protection, and trade in raptors is prohibited. However, this trade exists because there is no energetic pressure applied or interest shown by the authorities in stopping wildlife traffic in this country. The Sonora Market and "Huizache" are not the only places where raptors are sold; street vendors, pet stores, popular markets and even newspaper announcements also offer diurnal birds of prey. I estimate that a minimum of 1,000 individual raptors are traded in Mexico City alone each year.

The data published by Dirección General de la Flora y Fauna Silvestres are not complete and there are probably twice as many undocumented falconers as legal ones in Mexico. Dozens of diurnal birds of prey must meet their death through bad capture techniques, stress, or deficient nutrition.

In addition to supporting the resolutions of the first World Conference on Birds of Prey in 1975 against the introduction or promotion of falconry in countries where it is not already practised and urging prohibition of the use of birds of prey as pets and of trade in them, I also recommend this group to send a statement to the Mexican government, including recommendations on the protection of these birds, urging effective measures for their preservation, and also urging that Mexico become a party to CITES. It is also essential that the developed countries do not import more raptors from undeveloped countries. This, however, may require the presentation of alternative sources of income to the farmers who trap and sell them.

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market. MONTHS

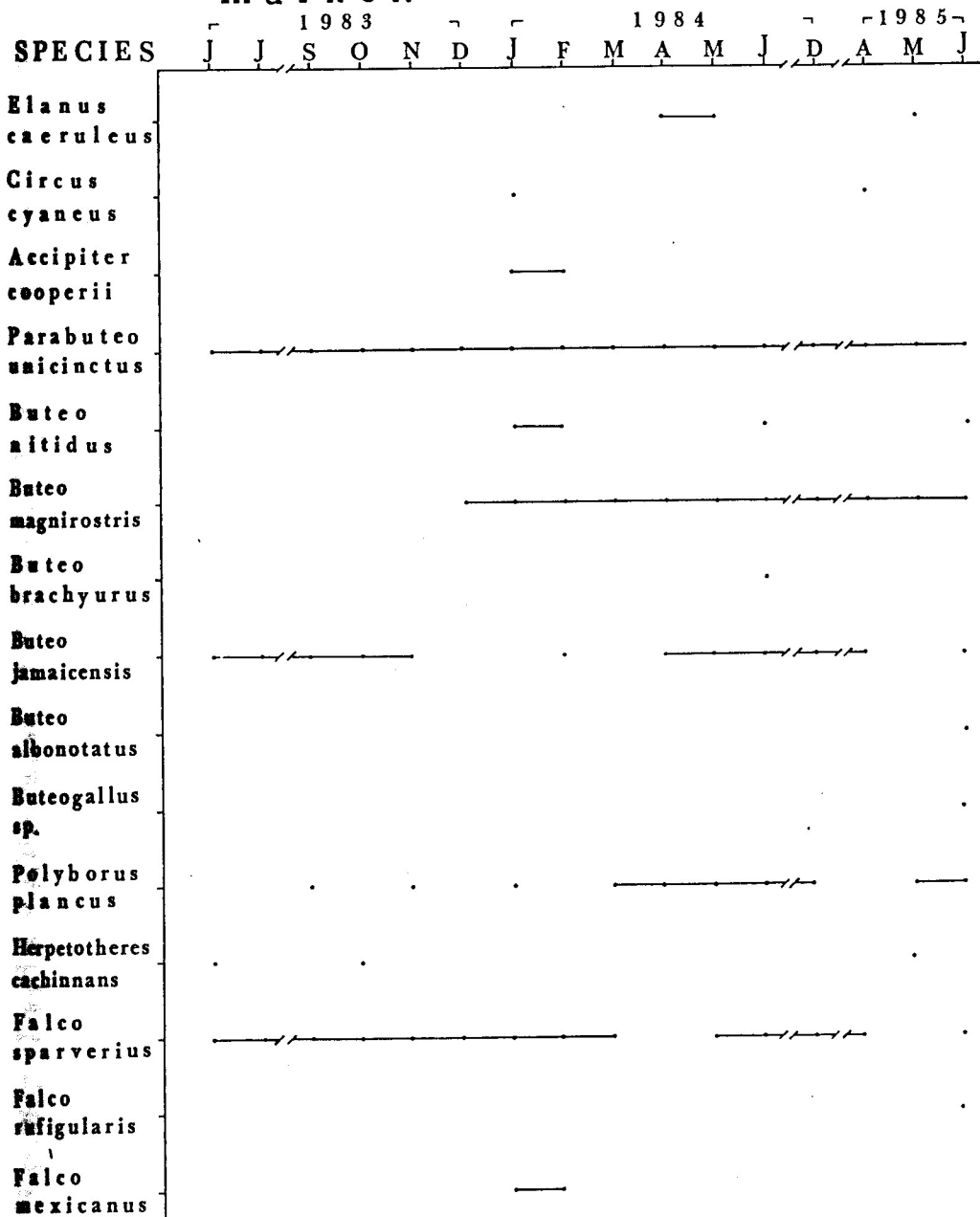


Fig.2a.- Individuals traded by specie in Sonora market.

Falco sparverius:256

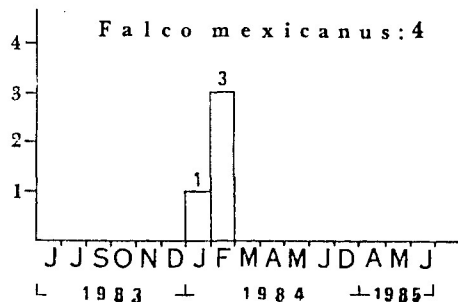
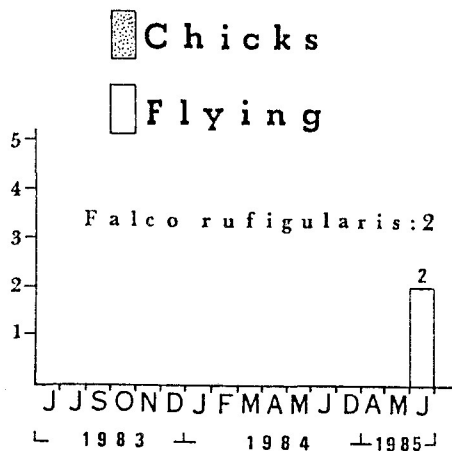
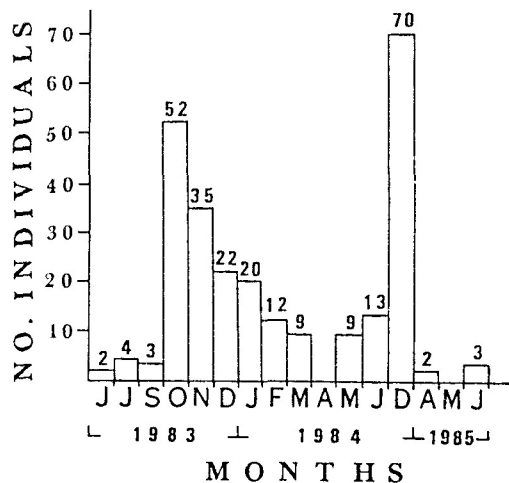


Fig3a.- Individuals traded by specie in Sonora market.

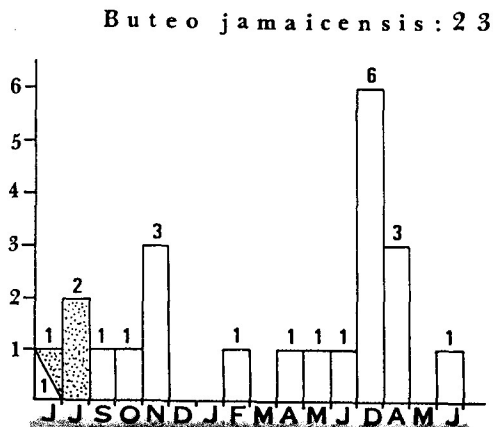
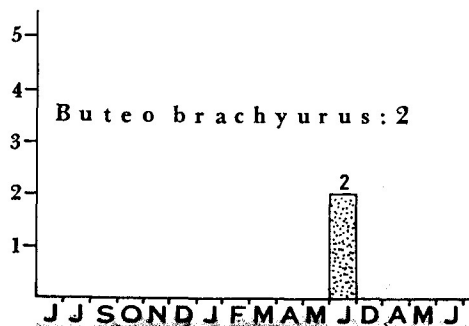
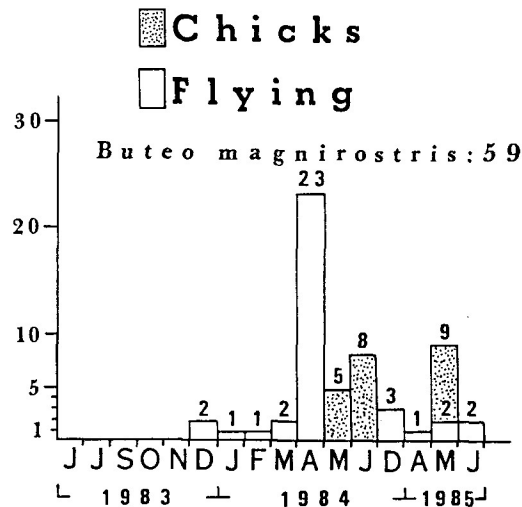
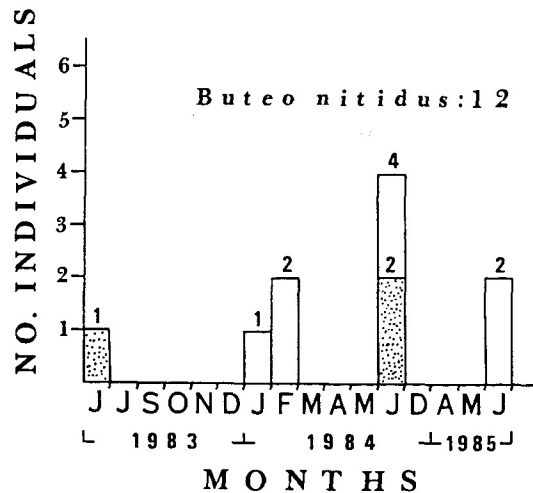


Fig. 3b- Individuals traded by specie in Sonora market.

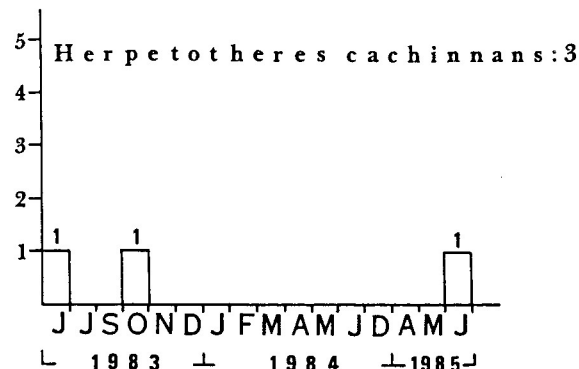
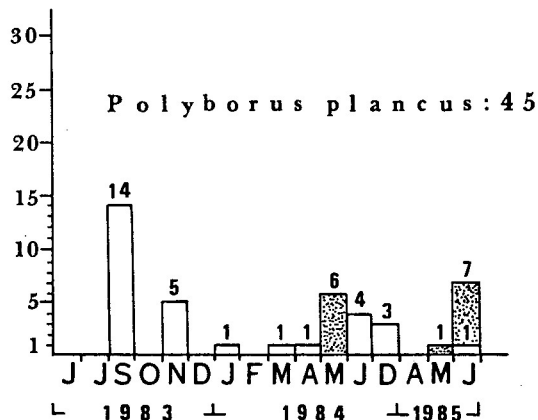
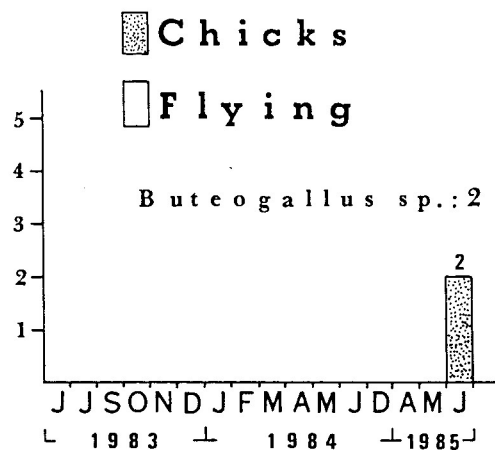
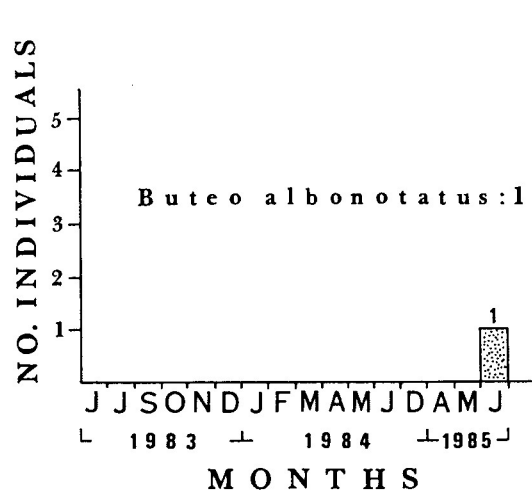


Table 1.- Quantity and media(\bar{x}) of raptors traded in Sonora market (June 1983 - June 1985).

S P E C I E S	CHICKS	\bar{X}	FLYING	\bar{X}	TOTAL	\bar{X}
<i>Elanus caeruleus</i>	14	.875	0	0	14	.875
<i>Circus cyaneus</i>	0	0	3	.187	3	.187
<i>Accipiter cooperii</i>	0	0	3	.187	3	.187
<i>Parabuteo unicinctus</i>	145	1.062	70	4.375	215	13.43
<i>Buteo nitidus</i>	3	.187	9	.562	12	.75
<i>Buteo magnirostris</i>	22	1.375	37	2.312	59	3.687
<i>Buteo brachyurus</i>	2	.125	0	0	2	.125
<i>Buteo jamaicensis</i>	3	.187	20	1.25	23	1.437
<i>Buteo albonotatus</i>	1	.062	0	0	1	.062
<i>Buteogallus sp.</i>	2	.125	0	0	2	.125
<i>Polyborus plancus</i>	14	.875	31	1.937	45	2.812
<i>Herpetotheres cachinnans</i>	0	0	3	.187	3	.187
<i>Falco sparverius</i>	0	0	256	16	256	16
<i>Falco rufigularis</i>	0	0	2	.125	2	.125
<i>Falco mexicanus</i>	0	0	4	.25	4	.25
T O T A L	206	—	438	—	644	—

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<i>Falco rufigularis</i>	0	0	2	.125	2	.125
<i>Falco mexicanus</i>	0	0	4	.25	4	.25
T O T A L	206	—	438	—	644	—

**Table 2.- Quantity and media (\bar{x}) of raptors
traded in Huizache, San Luis Po-
tosi (1980 to 1983).**

S P E C I E S	CHICKS	\bar{X}	FLYING	\bar{X}	TOTAL	\bar{X}
Parabuteo unicinctus	47	7.83	78	13	125	20.83
Accipiter cooperii	0	0	3	.5	3	.5
Buteo nitidus	0	0	1	.16	1	.16
Buteo jamaicensis	13	2.16	45	7.5	58	9.6
Aquila chrysaetos	2	.33	0	0	2	.33
Polyborus plancus	22	3.6	25	4.16	47	7.83
Falco sparverius	24	4	147	24.5	171	28.5
Falco mexicanus	0	0	1	.16	1	.16
T O T A L	108		300		408	

**Table 3.- U.S. importations of
dead and live rap-
tors from Mexico for
personal and commer-
cial purposes 1980-1982.**

S P E C I E S	I N D I V I D U A L S	P E R C E N T
<i>Accipiter striatus</i>	2	2.1
<i>Accipiter cooperii</i>	2	2.1
<i>Buteogallus urubitinga</i>	1	1.0
<i>Parabuteo unicinctus</i>	12	12.6
<i>Buteo nitidus</i>	1	1.0
<i>Buteo lineatus</i>	1	1.0
<i>Buteo platypterus</i>	2	2.1
<i>Buteo swainsoni</i>	1	1.0
<i>Buteo jamaicensis</i>	33	34.7
<i>Buteo regalis</i>	1	1.0
<i>Aquila chrysaetos</i>	1	1.0
<i>Elanus caeruleus</i>	1	1.0
<i>Polyborus plancus</i>	1	1.0
<i>Falco sparverius</i>	18	8.9
<i>Falco peregrinus</i>	18	8.9
T O T A L	95	