



IDAHO CHAPTER

25TH ANNUAL MEETING

FEBRUARY 26-27, 1988

BOISE, IDAHO

IDAHO CHAPTER - THE WILDLIFE SOCIETY

1987 ANNUAL MEETING

ACKNOWLEDGEMENTS

The Idaho Chapter wishes to recognize the substantial efforts of several individuals for making this meeting possible.

KAREN STEENHOF

SIGNE SATHER - BLAIR

SAM MATTISE

ALAN SANDS

BOB MARTIN

JEROME HANSEN

CHUCK BLAIR

We also appreciate the generous contribution of \$100.00 from each of the following companies in support of this gathering.

IDAHO POWER COMPANY

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1988 ANNUAL MEETING
OF THE
IDAHO CHAPTER - THE WILDLIFE SOCIETY

RED LION DOWNTOWNER
FEBRUARY 26-27, 1988

FRIDAY, FEBRUARY 26

7:30 - 8:30 Registration - Lobby

8:30 - 8:40 OPENING REMARKS

SESSION A. HABITAT LOSS: CONFLICTS AND SOLUTIONS -John Wolflin, moderator.

8:40 - 9:00 Riparian areas as wildlife habitat: past, present, and future- A. E. THOMAS, Bureau of Land Management, Boise.

9:00 - 9:20 Effects of livestock grazing on raptors in the Western United States- M. N. KOCHERT, Bureau of Land Management, Boise.

9:20 - 9:40 Rehab of a crucial mule deer winter range: the Squaw Butte burn- S. MATTISE, Bureau of Land Management, Boise.

9:40 - 10:00 The habitat needs of lynx and timber harvesting: conflict or compromise- G. M. KOEHLER, Wildlife Research Institute, Moscow.

10:00 - 10:20 REFRESHMENT BREAK

SESSION B. WILDLIFE HABITAT MANAGEMENT OPPORTUNITIES -Alan Sands, moderator.

10:20 - 10:40 Wildlife opportunities in an urban riparian development- J. M. GEBHARDT, H. A. HARPER, and A. E. THOMAS, Resource Systems Inc., Boise.

10:40 - 11:00 Idaho's habitat improvement program (HIP)- T. HEMKER, Idaho Dep. Fish and Game, Pocatello.

11:00 - 11:20 The Boise District isolated tract program- S. MATTISE, Bureau of Land Management, Boise.

11:20 - 11:40 Electrical transmission lines: improved habitat for nesting birds of prey?- K. STEENHOF, M. N. KOCHERT, Bureau of Land Management, Boise, and J.A. ROPPE, Pacific Power and Light Company, Portland, Oregon.

11:40 - 1:10 LUNCH BREAK

FRIDAY AFTERNOON, FEBRUARY 26

SESSION C. POPULATION MANAGEMENT: REINTRODUCTON AND HARVEST -John Beecham,
moderator.

- 1:10 - 1:30 Ruffed grouse trapping in southeast Idaho- D. A. GRANFORS and T. HEMKER, Idaho Dep. Fish and Game, Pocatello.
- 1:30 - 1:50 Implications of 3 release methods for translocated sage grouse- D. D. MUSIL and K. P. REESE, Dep. Fish and Wildlife Resources, University of Idaho, Moscow, and J. W. CONNELLY, Idaho Dep. Fish and Game, Pocatello.
- 1:50 - 2:10 Wildlife translocation as a species conservation tool: results of a survey- B. GRIFFITH, J. M. SCOTT, Dep. Fish and Wildlife Resources, University of Idaho, Moscow, J. W. CARPENTER, Patuxent Wildlife Research Center, Laurel, Maryland, and C. REED, Dep. Conservation, Twizel, New Zealand.
- 2:10 - 2:30 Managing for elk hunting opportunities on the Boise National Forest- T. TRENT, Idaho Dep. Fish and Game, and P. MOROZ, Boise National Forest, Boise
- 2:30 - 2:50 A population model of bobcats to determine sustainable harvest- S. KNICK, Idaho Dep. Fish and Game, Coeur D'Alene.
- 2:50 - 3:00 REFRESHMENT BREAK
- 3:00 - 5:30 BUSINESS MEETING
- 6:00 - 9:00 HAPPY HOUR, HORS D'OEUVRES, AND AUCTION
- 9:00 - 12:00 MUSIC AND DANCING

SATURDAY, FEBRUARY 27

SESSION D. GENERAL BIOLOGY OF IDAHO'S WILDLIFE -Jenny Carson, moderator.

- 8:20 - 8:40 Status and distribution of harlequin ducks in northern Idaho- R. L. WALLEN and C. R. GROVES, Idaho Natural Heritage Program, Boise.
- 8:40 - 9:00 Migrations of shorebirds in eastern Idaho- C. H. TROST and B. JAMISON, Dep. Biological Sciences, Idaho State University, Pocatello.
- 9:00 - 9:20 Population characteristics of grizzly bears in northern Idaho- S. KNICK, Idaho Dep. Fish and Game, Coeur D'Alene.
- 9:20 - 9:40 Prey delivery rates of nesting prairie falcons- A. M. A. HOLTHUIJZEN, A. R. ANSELL, Idaho Power Company, Boise, M. N. KOCHERT, L. S. YOUNG, AND K. STEENHOF, Bureau of Land Management, Boise.
- 9:40 - 10:00 Circadian rhythm of habitat use by mule deer (Odocoileus hemionus)- M. J. MCDONALD, B. KELLER, Dep. Biological Sciences, Idaho State University, Pocatello, and C. G. BROWN, Idaho Dep. Fish and Game, Pocatello.
- 10:00 - 10:20 REFRESHMENT BREAK

SESSION E. WILDLIFE POTPOURRI -Jerome Hansen, moderator

- 10:20 - 10:40 Sage grouse seasonal movements and their relevance to management- J. W. CONNELLY, Idaho Dep. Fish and Game, W. WAKKINEN, AND K. P. REESE, Dep. Fish and Wildlife Resources, University of Idaho, Moscow.
- 10:40 - 11:00 Territorial aggression of nesting prairie falcons- A. M. A. HOLTHUIJZEN, A. R. ANSELL, Idaho Power Company, Boise, M. N. KOCHERT, L. S. YOUNG, Bureau of Land Management, Boise, and R. D. WILLIAMS, Pacific Gas and Electric Company, San Ramon, California.
- 11:00 - 11:20 Test of the ecological trap hypothesis with artificial bird nests- J. T. RATTI and K. P. REESE, Dep. Fish and Wildlife Resources, University of Idaho, Moscow.
- 11:20 - 11:40 A riparian stratification and inventory approach- H. HUDAK and J. LLOYD, Sawtooth National Forest, Twin Falls.
- 11:40 - 12:00 CLOSING REMARKS AND AWARDS.
- 12:00 - 1:00 Executive Committee Meeting/Luncheon

IDAHO CHAPTER
THE WILDLIFE SOCIETY

1988 BUSINESS MEETING AGENDA

OLD BUSINESS

- o 1987 Business Meeting Minutes
- o Treasurer's Report - Sam Mattise
- o Membership Update - Bill Mullins
- o Chapter Funding of President's Travel
- o Election Results

NEW BUSINESS

- o 1989 and Beyond - Meeting Location
- o 1990 Centennial Year Meeting - Mike Scott
- o Summer Meeting - Paul Moroz/Jay Gore
- o ISU Scholarship - Sam Mattise
- o Committee Assignments
- o Joint Summer Meeting with Society for Range Management
- o Northwest Section News - John Ratti
- o TWS Council News - Lew Nelson

ABSTRACTS

1.

RIPARIAN AREAS AS WILDLIFE HABITAT: PAST, PRESENT, AND FUTURE.

ALLAN E. THOMAS. Bureau of Land Management, Idaho State Office,
3380 Americana Terrace, Boise, ID 83706.

Riparian areas are very important as habitat to a wide variety of wildlife species. They provide such things as escape cover, shelter from weather extremes, food from diverse plants and/or prey species there, and structure for nests and perches. Wildlife may occupy the areas as permanent, seasonal, or casual residents, or use the riparian as travel lanes. For the last 120+ years, these areas have been degraded by activities such as road building, mining, recreational developments, irrigation diversions, urban growth, and livestock grazing. Recent efforts to reverse this degradation are described.

2.

EFFECTS OF LIVESTOCK GRAZING ON RAPTORS IN THE WESTERN UNITED STATES.

M. KOCHERT. Boise District, BLM, 3948 Development Ave., Boise, ID 83705

Livestock grazing in the western United States began in the early 1800's. Major soil and vegetation changes occurred in the West concurrent with intensive overgrazing around 1900. Grazing can influence raptors by 3 basic processes. First, cattle grazing in riparian habitats in some areas can inhibit regeneration of nest trees and reduce nest substrate availability. Second, it appears that grazing tends to reduce prey diversity and in some cases abundance. Responses of prey are quite variable depending on species, habitat, and grazing intensity. As a group, granivorous prey species may be more tolerant of grazing than other species. Third, by removing cover, grazing may increase prey vulnerability to raptor predation. Controlled grazing in upland habitats may benefit some open land species such as prairie falcons and merlins. The primary means of mitigating the effects of grazing is adoption of effective grazing practices with proper stocking rates and strict timing and control of livestock use.

3.

REHAB OF A CRUCIAL MULE DEER WINTER RANGE: THE SQUAW BUTTE BURN

S. MATTISE. Boise Dist., BLM, 3948 Development Ave., Boise, ID 83705

In August 1986, the Cascade Resource Area wildfires burned approximately 218,600 ac. which included 90,000 ac. public, 12,800 ac. state and 115,800 ac. privately owned lands.

The greatest loss was in the Squaw Butte Complex. The main concerns here were: the destruction of 107,000 ac. of crucial mule deer winter range and forage for the 5,000 to 7,000 deer that winter in the area, the severe damage to many watersheds and the possibility of extreme erosion and sediment yields due to lack of vegetation.

The immediate goal was to minimize soil erosion and sediment yields by enhancing vegetative cover. The long range goal was to reestablish the shrub component in the crucial mule deer winter range.

4.

THE HABITAT NEEDS OF LYNX AND TIMBER HARVESTING: CONFLICT OR COMPROMISE

G. M. KOEHLER. Wildlife Research Institute, P.O. Box 3246, University Station, Moscow, ID 83843

The lynx is a candidate for threatened status, because of heavy trapping pressure and because of threats from timber demands on its habitat. However, with proper planning timber harvesting can be compatible with lynx habitat requirements for cover, denning, and prey. This calls for protecting stands of mature spruce-subalpine fir for denning, and creating young aged lodgepole pine forest for snowshoe hares, its principal prey, by logging or fires.

5.

WILDLIFE OPPORTUNITIES IN AN URBAN RIPARIAN DEVELOPMENT

JOYCE M. GEBHARDT, HUGH A. HARPER, ALLAN E. THOMAS. Resource Systems, Inc. Boise, ID 83709

In 1986 River Run Development Co. proposed the first housing development along the Boise River under the recently adopted Boise River Land Use Plan. They contracted with a group of wildlife and fisheries biologists to examine alternatives under which habitat opportunities could be improved within the 200-ft. setback. One of the major issues was routing the city Greenbelt path to minimize conflict with wintering bald eagles. Creation of a wetland complex, transplanting vegetation, artificial fox dens, and re-routing Loggers Creek are some of the methods used to enhance the area for wildlife and fisheries.

6.

IDAHO'S HABITAT IMPROVEMENT PROGRAM (HIP)

T. HEMKER. IDAHO DEPT. OF FISH & GAME, POCATELLO, ID 83204

In 1987 the Idaho Dept. of Fish & Game implemented a new program to allocate funds raised by the state's new waterfowl and upland game stamps. These stamps are expected to annually generate \$135,000 and \$250,000 respectively. Funds will be spent to develop and improve habitat for quail, partridge, pheasants and all species of waterfowl. Projects will include development, maintenance and enhancement of winter cover, nesting cover, guzzlers and food plots for upland game and development improvement of ponds, islands and other limited habitat for waterfowl. Projects will be cost shared with public and private groups as possible and conducted statewide where opportunities exist. Acquisition of waterfowl habitat with stamp funds will be done, while acquisition of private land with upland game stamp funds is prohibited by legislation. Hunter access is not required of cooperators but will be encouraged.

7.

THE BOISE DISTRICT ISOLATED TRACTS PROGRAM: A SUCCESS STORY

S. MATTISE. Boise Dist., BLM, 3948 Development Ave., Boise, ID 83705

The isolated tract program was started in the Jarbidge Resource Area of Boise District in 1977. It involved the cooperative efforts of the BLM, USFS and Idaho Fish and Game. The main purpose of the project was to take isolated tracts of public land and rehab it to produce habitat for upland game and non-game species.

There are 12,000 ac. of isolated tracts scattered through three major, desert land entry, agricultural projects: Blue Gulch, Bell Rapids and Grindstone Butte. Approximately 2,000 ac. were seeded and interseeded to grasses and shrubs. Fences were established, catch reservoirs were dug and guzzlers were installed to enhance these tracts for wildlife use.

8.

ELECTRICAL TRANSMISSION LINES: IMPROVED HABITAT FOR NESTING BIRDS OF PREY?

K. STEENHOF and M.N. KOCHERT, Bureau of Land Management, Boise, Idaho, and J.A. ROPPE, Pacific Power and Light Company, Portland, Oregon.

Nesting success of breeding Golden Eagle, Red-tailed Hawk, and Ferruginous Hawk pairs on Pacific Power and Light Company's 500 kV transmission line are contrasted with those of pairs nesting in the nearby Snake River Canyon from 1983-1987. Higher success rates on the power line may be related to: 1) the presence of unexploited prey populations in the nest vicinity; 2) reduced nestling heat stress due to cooling winds and shade from the tower latticework; 3) protection from predators; 4) protection from fire; and 5) reduced exposure to Trichomoniasis. Power line nests, however, experience higher risks of destruction by wind. Possible mitigating measures are discussed.

9.

RUFFED GROUSE TRAPPING IN SOUTHEAST IDAHO

D. A. GRANFORS, AND T. HEMKER. Idaho Department of Fish and Game, Pocatello, ID 83201

Ruffed grouse were captured in lily pad traps in Caribou National Forest for transplant to the Sawtooth National Forest, south of Twin Falls, from 18 August through 16 September 1987. A total of 80 ruffed grouse were captured and 71 were transplanted. Five percent of the birds captured were lost to the release due to mortalities. This is the first report of ruffed grouse being trapped in Idaho in sufficient numbers for transplanting.

10. IMPLICATIONS OF THREE RELEASE METHODS FOR TRANSLOCATED SAGE GROUSE

D. D. MUSIL and K. P. REESE, Department of Fish and Wildlife Resources, University of Idaho, Moscow, ID 83843, and
J. W. CONNELLY, Idaho Department of Fish and Game, Pocatello, ID 83204

The sage grouse population in the Sawtooth Valley of central Idaho has drastically declined in recent years. In an attempt to augment the population, 196 wild sage grouse were captured from similar mountain valleys and translocated into the Sawtooth Valley in 1986 and 1987. Of these, 44 (13 males, 31 females) were equipped with solar-powered radio transmitters. In 1987, 3 release methods were compared for 107 birds which included 44 released by hand as singles, 37 in groups of 4-10 birds from a holding pen, and 24 in anesthetized groups of 4-6. Nine radio-marked birds were included in each release method. Mortality was highest during the first 2 weeks post-release and appeared higher for the single birds released by hand. For both years combined, at least 19 (43%) of the radio-marked birds survived and became established.

11. WILDLIFE TRANSLOCATION AS A SPECIES CONSERVATION TOOL: RESULTS OF A SURVEY

B. GRIFFITH, J. M. SCOTT (Department of Fish and Wildlife Resources, University of Idaho, Moscow 83843), J. W. CARPENTER (U.S. Fish and Wildlife Service, Patuxent Wildlife Research Center, Laurel, MD 20708), and C. REED (Department of Conservation, Twizel, New Zealand).

We conducted a survey of conservation agencies in the U. S., Canada, New Zealand, and Australia. We determined the magnitude of translocations and identified common methods associated with success. About 85% of agencies responded. Since 1973 there were 363 translocations per year in North America. Native game birds and mammals constituted 91%, non-game species accounted for 3%, and T&E species accounted for 6% of all translocations. One-half the agencies translocated one or more species every year. Twenty one percent of the agencies conducted 71% of the translocations; Canadian programs have become more active since 1981. T&E species were more likely to have had habitat improvement and been monitored than other groups; translocations of non-native species tended to be less successful.

12. MANAGING FOR ELK HUNTING OPPORTUNITIES ON THE BOISE NATIONAL FOREST.

T. TRENT, AND P. MOROZ. Idaho Department of Fish and Game, Boise and USDA - Forest Service, Boise National Forest, Boise, Idaho.

Elk population management and elk habitat management are primary goals of the Idaho Department of Fish and Game and the Boise National Forest respectively. Coordination between these agencies has been focused on achieving compatible elk population levels and habitat carrying capacities on the Forest. Elk hunting opportunity objectives have not been mutually set by these agencies. This paper describes a greater emphasis to incorporate elk hunting opportunities into long term management objectives for both agencies. Elk hunting opportunities are described for the Boise National Forest based upon the recreation opportunity spectrum concept. Implications of managing for specific hunting opportunities over time are discussed in terms of road densities, road and trail uses, vegetation manipulation, elk population levels, herd structure, age, trophy status and hunting restrictions.

13. A BOBCAT POPULATION MODEL TO DETERMINE SUSTAINABLE HARVESTS

STEVEN T. KNICK, Idaho Department of Fish and Game, 2320 Government Way, Coeur d'Alene, Idaho 83814

A computer model of bobcat (*Felis rufus*) populations was developed to determine levels of sustainable harvests. The model combined the spatial characteristics of bobcat social organization and dispersal with temporal attributes of natality and mortality. Model parameters were determined from field studies in which 108 bobcats were marked in southeastern Idaho. Recommended harvests were less than 20% of the fall population. As harvest intensity increased, more vacant territories were created by higher mortality rates to adult females. The vacant territories were filled by nonreproducing subadult females. At extreme harvest levels, the population depended on immigration for recruitment rather than from reproduction within the population.

14. STATUS AND DISTRIBUTION OF HARLEQUIN DUCKS IN NORTHERN IDAHO

R. L. WALLEN and C. R. GROVES. Idaho Natural Heritage Program, Boise, Idaho 83707

A survey of 30 streams was undertaken to determine the status and distribution of harlequin ducks in northern Idaho. Six sightings were recorded during the survey and 14 additional reports by other observers were noted. These mountain ducks arrived in Idaho in early May. Drakes and nonbreeding females remained in Idaho until mid-June. The young were born in June. By mid-August the breeding adult females and juveniles had departed the study area. Suitability of habitat for harlequin ducks in northern Idaho was investigated and recommendations were presented for the timing and location of future surveys. Additional quantitative data are necessary to determine the success of breeding attempts and production of young throughout the study area.

15. MIGRATIONS OF SHOREBIRDS IN EASTERN IDAHO

C. H. Trost, and Bryan Jamison. Department of Biological Sciences, Idaho State University, Pocatello, ID, 83209.

For the last two years the migrating shorebirds have been censused in a systematic manner on the edge of American Falls Reservoir. Between 50- and 100,000 birds of 28 species have been counted, with the timing of influx and departure noted. These long-distance migrants are vulnerable to botulism and agricultural toxic chemicals, as well as to chance fluctuations in water level and food supplies. In addition, there are plans to place mini-dams along the spring seeps, which would inundate shorebird feeding areas. The magnitudes of their flights and factors affecting these relatively unknown birds will be discussed.

16.

POPULATION CHARACTERISTICS OF GRIZZLY BEARS IN NORTHERN IDAHO

STEVEN T. KNICK, Idaho Department of Fish and Game, 2320 Government Way, Coeur d'Alene, Idaho 83814

Grizzly bears (Ursus arctos) have been studied in the Selkirk Mountains of northern Idaho since 1983 to determine natality and mortality rates, population size and distribution, and habitat use. This study is part of the effort to recover this population to a viable status. Eleven bears, 4 males and 7 females, were captured and radio-instrumented. The population is primarily young; all bears except one were less than 8 years of age at their initial capture. Three litters, each with 2 cubs, were produced. Both cubs of one litter were lost to unknown causes. That adult female subsequently produced another litter the following year. The low annual survival rate of males (58%) is due to illegal shooting.

17.

PREY DELIVERY RATES OF NESTING PRAIRIE FALCONS.

A. M. A. HOLTHUIJZEN, A. R. ANSELL, Idaho Power Co., P.O. Box 70, Boise, ID 83707, M. N. KOCHERT, L. S. YOUNG, AND K. STEENHOF. U.S. Bur. Land Manage., 3948 Development Ave., Boise, ID 83705.

From 1984-86, 37 prairie falcon nesting attempts were observed. Observations began 1-2 weeks prior to egg-laying and continued until chicks were 30-35 days old. During 454 days of observation, 1260 prey items were delivered. Prey delivery rates were slightly higher before eggs were laid than during incubation. Rates increased about 5-fold during the nestling period. Male falcons supplied most prey consumed by females prior to hatching. Females provided up to 50% of the total number of prey items during the nestling period. Prey delivery rates were higher for pairs with larger broods.

18.

CIRCADIAN RHYTHM OF HABITAT USE BY MULE DEER (ODOCOILEUS HEMIONUS)

M. J. MCDONALD. and B. KELLER. Dept. of Biological Sciences, Idaho State University, Pocatello, ID 83209.

C. G. BROWN. Senior Wildlife Research Biologist, Idaho Fish and Game Dept., Pocatello, ID 83201.

From September-November 1987, radio-collared mule deer (Odocoileus hemionus) were monitored in Idaho Fish and Game Management Unit 73 to document changes in circadian activity patterns and habitat use with respect to hunting pressure. Approximately 8,000 15-minute activity sampling periods were collected on 13 (8 female and 5 male) deer on the Elkhorn, Oxford, and South Hawkins subdivisions. Animal relocations were gathered and hunter surveys conducted from a fixed-wing aircraft throughout the field season. Four radio-collared males were lost due to hunter mortality and one female made a movement in excess of 35 km out of the study area at the onset of hunting season.

19.

SAGE GROUSE SEASONAL MOVEMENTS AND THEIR RELEVANCE TO MANAGEMENT.

J. W. CONNELLY. Idaho Department of Fish and Game, Pocatello, ID 83205

W. WAKKINEN AND K. P. REESE. Wildlife Department, University of Idaho, Moscow, ID 83843

Seasonal movements of sage grouse in Idaho have been studied since the early 1950's. Many grouse move >50km to seasonal ranges while others are non-migratory. Distances moved are not entirely influenced by the proximity of seasonal habitats, suggesting that seasonal movements tend to be traditional. Because of the variation in seasonal movements among sage grouse, grouse populations should be defined on a temporal as well as geographic basis. Moreover, protection of sagebrush habitats within a 3.2 km radius of leks may not be sufficient to ensure protection of year-long habitat requirements.

20.

TERRITORIAL AGGRESSION OF NESTING PRAIRIE FALCONS.

A. M. A. HOLTHUIJZEN, A. R. ANSELL, Idaho Power Co., P.O. Box 70, Boise, ID 83707, M. N. KOCHERT, L. S. YOUNG, U.S. Bur. Land Manage., 3948 Development Ave., Boise, ID 83705, AND R. D. WILLIAMS. Pacific Gas and Electric Co., 3400 Crow Canyon Rd., San Ramon, CA 94583.

From 1984-86, 37 prairie falcon nesting attempts were observed. During 454 days of observation, 2900 aggressive interactions were recorded. Nesting stage and nesting pair, but not sex, influenced the number of aggressive interactions. Generally, the number of interactions was high before eggs were laid, declined during incubation, peaked about the time eggs hatched, declined again during early brood-rearing, and increased again during late brood-rearing. The frequency of interactions between falcons and other raptor species was positively associated with the nesting densities of those species.

21.

TEST OF THE ECOLOGICAL TRAP HYPOTHESIS WITH ARTIFICIAL BIRD NESTS

JOHN T. RATTI, and KERRY P. REESE, Department of Fish and Wildlife Resources, University of Idaho, Moscow, ID 83843

Abstract: We tested the ecological trap hypothesis using artificial bird nests. Predation rates were determined for 759 nests in a forest-field ecotone in Idaho. Data were collected at an abrupt edge and a "feathered edge" of partial timber removal. Nests in a low-density pattern received greater predation; the high-density area had more shrubs which may have restricted predator effectiveness. Predation rates were 4 times greater in forest than field plots; reflecting infrequent use of fields by avian predators using perch sites. Our data do not support the ecological trap hypothesis; we found no inverse relationship between distance from edge and predation rate. However, the abrupt edge had higher predation than the "feathered edge." These data support earlier hypotheses that birds are poorly adapted to abrupt artificial edge habitats, and that these habitats may have a barrier effect creating a travel lane for predators.

22.

A RIPARIAN STRATIFICATION AND INVENTORY APPROACH

H. HUDAK, AND J. LLOYD. Sawtooth National Forest, Twin Falls, Id. 83301

The Sawtooth National Forest has developed a stratification and inventory process for riparian areas which we believe is essential for proper management of these areas.

Five management categories of riparian areas have been described.

Inventory provides a description of the status of the riparian area as it relates to its potential and management goal(s).

Alternate

ABUNDANCE, DISTRIBUTION, AND FOOD HABITS OF BALD EAGLES WINTERING ON LAKE PEND OREILLE AND THE LOWER CLARK FORK RIVER, IDAHO.

J. G. Crenshaw. Idaho Department of Fish and Game, Pocatello, ID 83204

Weekly aerial censuses of bald eagles wintering on northern Idaho's Lake Pend Oreille and the lower Clark Fork River were conducted during the autumns and winters of 1985-86 and 1986-87. Peck censuses exceeded 250 eagles and were recorded in late December and early January. Mid-January censuses were significantly higher than those recorded since 1981. Changes in eagle distribution were coincident with shifts in prey availability. Analysis of pellets and prey remains identified fish and waterfowl species as major components of the eagles's diet.

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