Boreal Partners in Flight Working Group

1997 Annual Report

compiled by:

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BOREAL PARTNERS IN FLIGHT WORKSHOP AGENDA

4 December 1997

Held in conjunction with the seventh Alaska Bird Conference
Abstracts of papers germane to PIF members are given in the appropriate sections

U.S. Fish and Wildlife Service Regional Office
Gordon W. Watson Conference Room
1011 East Tudor Road
Anchorage, Alaska

3 December

8:45 pm Presentation — *Birds, conservation, and politics in the land of the Maya*, Chandler S. Robbins, Patuxent Wildlife Research Center, USGS-BRD, Laurel, MD (given as banquet address at the Alaska Bird Conference)

4 December

8:00 am Welcome and introductions — Brad Andres, Chair, Boreal Partners in Flight

Inventory, Monitoring, Research

8:10 am Breeding Bird Survey in Alaska — Brad Andres, USFWS

8:25 am Discussion on mist-netting and banding efforts in Alaska — Brad Andres

8:45 am Off-road point count program — Colleen Handel, USGS-BRD

9:00 am Update on the effects of the Spruce Bark Beetle on breeding birds — Steve Matsuoka, USGS-BRD

9:15 am Breeding bird surveys on Research Natural Areas in the Tongass National Forest — Brad Andres

Information and Education

9:30 am Update on "Teaming with Wildlife", the Fish and Wildlife Diversity Funding Initiative — John Wright, ADF&G

9:45 am North American Migration Count and International Migratory Bird Day 1997 — Brad Andres

10:00 am Current outreach projects — Brad Andres

10:15 am Break

10:30 am Filemaker Pro® database for entering and summarizing banding data — Terry Doyle, Tetlin NWR

10:45 am Communication within Boreal Partners in Flight — Brad Andres

International Efforts

11:00 am Alvarado wetland project with Pronatura-Veracruz — Brad Andres

11:15 am Mapping neotropical migrants in Belize — Chandler Robbins, Patuxent Wildlife Research Center, USGS-BRD, Laurel, MD

12:00 pm Lunch

The Conservation Plan

1:15 pm Species account reviews for the Alaska Landbird Conservation Plan — Paul Cotter, USFWS

1:30 pm The Important Bird Areas program — Jeff Price, American Bird Conservancy, Washington, D. C.

2:30 pm Break out into biogeographic regional groups and identify specific, achievable action items that relate to habitat and species priorities and can be accomplished in 1998.

Southeastern

Do we know enough about birds' response to cutting?
Do we have good information on densities of birds in deciduous forests?
Can BPIF priorities mesh with Tongass monitoring efforts?
Will there be a Hummingbird Festival in Ketchikan?

Southcoastal

Who can support increased monitoring efforts in coastal spruce forests?
Can we pull together information in the health of the coastal spruce forest and predict effects on bird populations?
What plans are there for an IMBD celebration in Anchorage?

Central

Is there enough broadscale monitoring being done in Central?
What habitats are being neglected and do they hold priority species?
What is the current status of logging in the Tanana Valley?
Are there plans for an IMBD celebration in Fairbanks?

Western

What is the current status of monitoring efforts?
Are there other methods/techniques to try?
Is a summary of existing information on abundance and habitat needed?
What West-specific I&E projects could be undertaken (e.g., "Birds of the Fish Camp")

4:00 pm Report to the larger group

4:15 pm Technical committee break outs

Monitoring/Research

Now that MAPS has had a review and information is accumulating on ORPCs, what recommendations should be made?
Where should we go with migration monitoring?
Has any "hot" bird-habitat research issue emerged recently?

Information and Education

Are our current outreach products advertized well enough?
What other statewide efforts should we undertake?

5:15 pm Report back to the group

5:30 pm Elections and officer responsibilities

5:45 pm Adjourn

INVENTORY, MONITORING, AND RESEARCH

BREEDING BIRD INVENTORIES

Brad Andres, U. S. Fish and Wildlife Service

In 1997, we continued to inventory local training areas (19 sites; Table 1) of the Alaska Army National Guard, primarily in southeastern, southcoastal, and southwestern Alaska. We spent 669 person-hours on 64 days and recorded 163 species of birds across all training areas. We also continued our breeding bird atlas of Fort Richardson, Anchorage. To date, we have documented 113 species of summer birds on the installation; 103 species were considered as breeders and 83% of these were confirmed as breeding on Fort Richardson.

Table 1. Locations of breeding bird inventories of Alaska National Guard training areas surveyed in 1997.

Angoon	Kake	Wrangell	Manokotak
Craig	Ketchikan	Kenai	New Stuyahok
Haines	Petersburg	Kodiak	Togiak
Hoonah	Sitka	Valdez	Stewart River (Nome)
Juneau	St. James Bay	Dillingham	

AN AREA SEARCH METHOD FOR INVENTORYING BREEDING BIRDS (ABC ABSTRACT), Brad A. Andres and Diana L. Brann (Migratory Bird Management, USFWS, 1011 E. Tudor Road, Anchorage, AK, 99503).

Baseline information on the distribution and abundance of breeding birds is central to the conservation of natural biodiversity in any landscape. To meet this need in Alaska, we developed a modified area search method to inventory breeding birds across a variety of geographic scales. Our method includes documenting the breeding status of all species encountered and assigning their abundance to one of several categories. Abundance estimates are standardized by the number of person-hours of effort during a survey. Enumeration of abundance by categories minimizes differences in estimates that are due to the abilities of observers. Our area search procedure generates a more complete list of bird species for an area than point counts and has the potential to be used as a monitoring tool. This method is not useful, however, for describing the abundance of large aggregated populations. Restricting survey effort to specific landscape units would increase the utility of the method.

We also participated in cooperative project with U. S. Forest Service, Forest Science Laboratory, to conduct baseline surveys of seven Research Natural Areas on the Tongass National Forest. This project will continue in 1998. We conducted point counts (84 total) and area searches on each RNA. We also determined the vegetation community at each point and measured vegetation structure at a subsample of points.

BREEDING BIRD SURVEY ROUTES

Because of the new recording technique, Patuxent is behind on processing '97 data and I have not yet received Alaska. A summary will be sent to participants in the next few months.

MONITORING BIRD POPULATIONS AND HABITAT CHANGES ON SOUTHEASTERN ALASKAN BREEDING BIRD SURVEY ROUTES (ABC ABSTRACT), Paul A. Cotter and Brad A. Andres (Migratory Bird Management, USFWS, 1011 E. Tudor Road, Anchorage, AK, 99503).

Characterizing habitat and its trends is critical in developing landbird monitoring plans and evaluating their effectiveness. To better understand Breeding Bird Survey (BBS) data in southeastern Alaska, we classified habitat at each stop along 12 BBS routes to ascertain habitat-use patterns of migratory and resident birds during the breeding season. Habitat was classified using a 3-tiered scheme (adapted from Viereck et al. 1992) emphasizing the structural landscape. Using 4 years of BBS data (1993-1996), we developed habitat distribution patterns for Southeastern Alaska landbirds. Stops comprising 60% or more of a single habitat were defined by that major cover type and percent occurrence distributions for each species were calculated. For example, Pacific-slope Flycatchers were present on 86% of all needleleaf forest stops. Further, needleleaf and shrub coverage was estimated with 10% resolution and plotted against bird density to determine general habitat preference. Chestnut-backed Chickadee densities were positively related to needleleaf cover and negatively related to shrub cover. Highest densities of Townsend's Warblers, however, occurred with moderate coverage of both trees and shrubs, suggesting they are associated with forest openings and edges rather than dense forest in Southeastern Alaska. This Alaska BBS habitat database allows us to continue monitoring Alaska's migrant and resident populations with concomitant changes in habitat and provides background for conducting more intensive bird-habitat studies. We are in the process of producing a statewide report on this work.

MIST-NETTING AND BANDING

Anna-Marie Barber, Alaska Bird Observatory

Following is a summary of banding activities in 1997 in Alaska.

SPECIES COMPOSITION AND ABUNDANCE OF FALL LANDBIRD MIGRANTS AT YAKUTAT, ALASKA (ABC ABSTRACT), Brad A. Andres and Brian T. Browne (Migratory Bird Management, USFWS, 1011 E. Tudor Road, Anchorage, AK, 99503).

The coastline of the eastern Gulf of Alaska is suspected of providing an important pathway for birds migrating to and from Alaska. No intensive study of landbird migration through this area, however, has been made. Therefore, we used mist nets to study the migration of landbirds along the coast during August and September, 1994-1997. We netted for a total of 211 days and 14,707 net-hours. We captured 7,729 individuals, at a rate of 52.6 birds/100 net-hours, and 48 species or forms. Five species constituted >62% of the total captures: the Orange-crowned Warbler, Hermit Thrush, Lincoln's Sparrow, Ruby-crowned Kinglet, and Yellow Warbler. Immature birds dominated the captures of common (>200 captures) species (77%; n = 7,292) and most captures (90%) were of species that are long- or medium-distance migrants. The high capture rate and high proportion of long- and medium-distance migrants indicates that Yakutat could be an acceptable location for establishing a long-term banding site to monitor populations of Neotropical migratory birds.

INTERANNUAL VARIATION IN RELATIVE ABUNDANCE, AGE STRUCTURE, AND TIMING OF FALL MIGRATION OF LANDBIRDS IN FAIRBANKS, ALASKA, 1992-1997 (ABC ABSTRACT), Anna-Marie Barber, (Alaska Bird Observatory, P.O. Box 80505, Fairbanks, AK, 99708).

An array of mist nets was used to capture landbirds between 15 July and 30 September 1992-1997. During 77,294 net-hours we banded 21,076 birds of 50 species. Capture rates averaged 28.6 ± 10.1 birds/100 net-hrs and ranged from 43.2 birds/100 net-hours in 1992 to 12.6 birds/100 net-hrs in 1993. The mean percentage of hatch year birds captured during six years was 86% ± 6%. The lowest percentage of hatch year birds captured occurred in 1993 (75%). More than 10 individuals of 17 species were caught each year. Of these 17 species, 10 species had their lowest capture rates of hatch year birds in 1993 suggesting a common factor influenced reproductive success. Mean capture rates (based on 5-day intervals) of hatch year birds were highest between 19 and 28 August (44.9 birds/100 net-hrs) while mean capture rates of after-hatch year birds were highest between 13 and 17 September (8.9 birds/100 net-hrs). There was little variation among years in timing of captures in either age class. The northern location of the migration station allows us to examine the initial phase of autumn migration in nearctic-neotropical passerines. Our data indicate juveniles begin fall migration before adults.

OFF-ROAD POINT COUNT PROGRAM

MONITORING POPULATION TRENDS OF LANDBIRDS IN ALASKA — DO WE HAVE THE POWER? (ABC ABSTRACT)

Colleen M. Handel (Alaska Biological Science Center, USGS-BRD, 1011 E. Tudor Rd., Anchorage, AK, 99503).

Under the auspices of Boreal Partners in Flight, biologists from Alaska and western Canada have combined efforts to develop a Boreal Landbird Monitoring Program. One component of this program is the Boreal Breeding Bird Survey, through which population trends are monitored over time through replicated surveys of miniroutes. Standard surveys consist of twelve 5-min point counts separated by a minimum of 250 m in roadless areas. Since 1992, biologists have contributed data from about 200 routes as part of an experimental research program to test different aspects of design for these surveys in Alaska. An intensive 4-year study in the Anchorage area examined the detectability of birds in relation to time of day, season, year, location, and observer. Total numbers of detections declined significantly after 1030 hrs and seasonally remained most stable between 10 and 30 June. For most (82%) of the 28 species commonly detected, the most significant source of variability in counts was location of the route. Six species (21%) showed significant interannual variation in detections and only 5 (18%) showed significant differences in counts among observers. The national Partners in Flight monitoring goal is to have a 90% probability of detecting a 50% change in population size over a 25-year period. Power analyses of the statewide data are now underway to determine the number of routes that will be required to meet this goal for landbird species within each biogeographic region of Alaska.

MONITORING LANDBIRDS IN DENALI NATIONAL PARK UTILIZING ON-ROAD AND OFF-ROAD POINT COUNTS (ABC ABSTRACT)

Peter W. C. Paton (Department of Natural Resource Science, University of Rhode Island, Kingston, RI, 02881) and Stephen K. Springer (Alaska Bird Observatory, P.O. Box 80505, Fairbanks, AK, 99708).

Point count techniques were used to monitor breeding birds in Denali National Park and Preserve, Alaska, from 1993 to 1997. Birds were surveyed from 9 off-road routes in spruce forests, and from 4 on-road routes in a variety of habitats from 1993 to 1997. A total of 45 species were detected during the off-road censuses, with species richness ranging from 26-32 species annually. Relative abundance of most species was similar among years during the off-road censuses. The cumulative number of species detected during the 4 on-road routes were 69, 70, 61, and 74 respectively, from 1993 to 1997. The on-road routes that exhibited greater species richness had a wider variety of habitat types. Inter-annual variation in population trends was similar between on-road and off-road censuses. The abundance of rare species, which occurred at <2% of all counting stations, fluctuated among years. In contrast, populations of species that were common exhibited little inter-annual variation.

BIRD DIVERSITY AND ABUNDANCE IN THE CENTRAL BROOKS RANGE (ABC ABSTRACT), Shelli A. Swanson and Donna L. DiFolco (National Park Service, 201 1st Ave., Fairbanks, AK, 99701).

Bird diversity and abundance has been surveyed annually along 3 off-road point count transects in Gates of the Arctic National Park and Preserve since 1993. Transects of 12 point count stations each are located in tundra (Upper Noatak River and near Anaktuvuk Pass) and boreal forest (Middle Fork Koyukuk River) ecosystems. On the Anaktuvuk Pass transect, species diversity was highest in Dryas dwarf scrub habitat (19 species), and bird abundance was highest in wet graminoid herbaceous habitat. Species diversity in the Upper Noatak River was highest in mesic graminoid herbaceous habitat (22 species), and bird abundance was highest in open tall shrub habitat. Dryas dwarf scrub habitat had the lowest bird abundance on both tundra transects. On the boreal forest transect, species diversity was highest in open broadleaf forest habitat (24 species), and open mixed forest habitat had the highest bird abundance. Species composition differed between the 3 transects, with only 7 species common to all areas surveyed. The 2 most abundant species on each transect were: Anaktuvuk Pass - American Tree Sparrow (20.6%) and Savannah Sparrow (18.6%); Noatak River - American Tree Sparrow (24.3 %) and White-crowned Sparrow (24.2%); and Middle Fork Koyukuk - Swainson's Thrush (22.3%) and Slate-colored Junco (9.8 %).

OTHER LANDBIRD RESEARCH PROJECTS

FOREST BIRD COMMUNITIES IN THE TANANA RIVER FLOODPLAIN (ABC ABSTRACT), Ann Johnson, (Institute of Arctic Biology, UAF, Fairbanks, AK, 99775).

To determine the relative influences of primary productivity, successional stage, and habitat complexity on breeding bird communities, I measured bird territory density, species richness, and species diversity in 3 forest habitats adjacent to the Tanana River in 1995 and 1996. I established 2 bird census plots (10.5 ha) in each of the following vegetation types: closed alder and willow shrubs, closed white spruce, and black spruce. Of the 12 successional stages found in the Tanana River floodplain, these types corresponded to stages 4, 8, and 12 as described by Viereck and were chosen because they represent habitats with high, moderate, and low levels of primary productivity. I used the spot mapping technique to generate territory maps for each forest bird species. Vegetation structure and species composition were measured at 42 sites within each census plot to determine the influence these factors had on avian habitat use at spatial scales of individual territory and habitat type. Logistic regression analysis was used to generate models of habitat use for 11 species of migrant songbirds.

VEGETATION AND BIRD SURVEYS AT FRYINGPAN CREEK IN CENTRAL ALASKA, BEFORE AND AFTER A PLACER MINING OPERATION (ABC ABSTRACT), Cathryn S. Moitoret (Northern Alaska Ecological Services, USFWS, 101 12th Ave., Box 19, Fairbanks, AK, 99701) and Ruth M. Gronquist (Bureau of Land Management, 1150 University Ave., Fairbanks, AK, 99709)

Vegetation and bird survey data were collected at a study site on Fryingpan Creek in Central Alaska as part of a multi-agency effort to document changes occurring as a result of a placer mining operation which impacted the area in 1995. Fifteen habitat types were identified and mapped using aerial photography. Individual bird sightings from breeding bird surveys conducted in June 1995 and 1996 (before and after the mining operation) were plotted on the habitat type map. Twenty-one bird species were recorded in the study area, with Gray-cheeked Thrush, Redpoll spp., White-crowned Sparrow, Lincoln's Sparrow, Yellow-rumped Warbler, and Wilson's Warbler being the most numerous. Highest densities of bird use occurred in the habitats with the densest cover of tall, medium and low shrubs: Riparian Willow Scrub and Woodland Spruce/Closed Low Scrub, with densities of 10.6 and 7.3 birds/ha. The placer mining operation eliminated approximately 3.2 ha of habitat, which supported approximately 14 birds prior to the disturbance. In the year following placer mining no birds were observed in the disturbed area, and there was an overall decline of 23 birds (37%) in the survey area. Reclamation which encourages revegetation with willow shrubs will likely provide the greatest benefit in re-establishing breeding bird habitats.

WOODPECKERS AND FIRE — DO BLACK-BACKED WOODPECKERS REQUIRE RECENT BURNS? (ABC ABSTRACT), Edward C. Murphy (Institute of Arctic Biology, UAF, Fairbanks AK, 99775-0180) and William A. Lehnhausen (Linnaea Associates, P.O. Box 82115, Fairbanks, AK, 99708).

Endemic population densities of Three-toed Woodpeckers are low (<0.1/ha) and the Black-backed Woodpecker is extremely rare in mature spruce stands of interior Alaska. Following the Rosie Creek fire in June 1983, woodpecker densities increased markedly and were as high as 0.9/ha in a 63-ha plot at the edge of the burn in the following two years. By December 1986, densities had declined to about 0.1/ha. Black-backed Woodpeckers fed primarily on charred portions of lightly to heavily burnt spruces and fed almost exclusively by excavating larval wood-boring beetles. Three-toed Woodpeckers fed on less-burnt spruces and foraged in and immediately under the bark; bark beetle larvae predominated in their diet. Following emergence of cerambycid adults in 1985, numbers of Black-backed Woodpeckers declined markedly. Our results suggest that in interior Alaska the Black-backed Woodpecker is extremely specialized in its foraging niche, exploiting outbreaks of wood-boring beetles for 2-3 years after fires. Consequently, this species may be particularly vulnerable to local and regional extinction as fire suppression intensifies and proposed programs of intensive salvage logging following fires throughout the region are enacted.

ENZYMATIC CONTROL OF WINTER FATTENING IN THE BLACK-CAPPED CHICKADEE IN INTERIOR ALASKA (ABC ABSTRACT), Susan M. Sharbaugh (Department of Biology and Wildlife, UAF, P.O. Box 756100, Fairbanks, AK, 99775), Pierre Deviche (Institute of Arctic Biology, UAF, P.O. Box 7000, Fairbanks, AK, 99775), and Marilyn Ramenofsky (Dept. of Zoology, NJ-15, University of Washington, WA, 98195)

Chronic exposure to extremely low temperatures and short photoperiods combine with small body mass (11-13 g) and relatively high mass-specific metabolic rate to constitute a physiological challenge to Black-capped Chickadees overwintering in interior Alaska. Fat reserves play an important role in meeting this challenge. Free-living chickadees captured in Fairbanks have larger fat reserves (determined by furcular fat volume) early in the day during the winter than in the fall or spring. Lipid reserves progressively increase as a function of time after morning twilight. Rates of fattening vary systematically with season, being greatest in winter. The ability to rapidly deposit fat in winter may be facilitated by increased activity of the fat deposition-promoting enzyme, adipose lipoprotein lipase. Seasonal lipase activity was measured in furcular fat samples obtained through the winter from chickadees held in outdoor flight aviaries in Fairbanks. Lipase activity in these birds was 20-30x higher than lipase activity previously measured in passerine birds during pre-migratory fattening. Lipase activity was highest in December/January. In chickadees, unusually high lipase activity may facilitate rapid deposition of large amounts of fat during short winter days.

STELLER'S SEA-EAGLES IN THE MAGADAN REGION OF RUSSIA IN 1997 (ABC ABSTRACT), M. J. McGrady (Raptor Research Technical Advisory Center, Boise State University, 1910 University Dr., Boise, ID, 23725), M. Thompson, R. Schrank, G. Bucaria, A. Jeffery (Chugach National Forest, USFS, Suite 300, 33301 'C' Street, Anchorage, AK, 99786), I. Utekhina (Magadansky State Reserve, Magadan, Russia), E. Potopov (Institute for Biological Problems of the North, Magadan, Russia), and P. Schempf (Migratory Bird Management, USFWS, 3000 Vintage Blvd., Suite 240, Juneau, AK, 99801).

In the summer of 1997 an international team surveyed coastline and rivers of Magadan and Khabarovsk regions of Russia for Steller's Sea-Eagles. At least 1 adult was seen at 69 of the 123 territories visited; 40 nests were productive. The average number of chicks per occupied nest was 1.24. We tagged 14 eagles with satellite received transmitters. The movement of these and 3 other birds marked elsewhere (1 in Kamchatka, and 2 in Amur) are illustrated. Details of timing of migration and movements are presented. This data is interim and is part of a multi-year, cooperative study involving U.S., Russian, and Japanese researchers.

MAPPING STELLER'S SEA-EAGLE NEST SITE IN THE MAGADAN REGION OF RUSSIA USING GLOBAL POSITIONING SYSTEM APPLICATIONS (ABC ABSTRACT), Randy D. Schrank, Michael L. Thompson, David C. Hale, Anne Jeffery and Garvan P. Bucaria (Chugach National Forest, USFS, 3301 "C" Street, Suite 300, Anchorage, AK, 99503), Michael E. Shephard (Tongass National Forest, USFS, 204 Siginaka Way, Sitka, AK, 99835), Robert B. Benter (USFWS, 1011 E. Tudor Road, Anchorage, AK, 99503), Michael J. McGrady (Raptor Research Technical Advisory Center, Boise State University, 1910 University Dr., Boise, ID, 23725), Irina Utekhina (Magadansky State Reserve, Magadan, Russia), and Eugene Potopov (Institute for Biological Problems of the North, Magadan, Russia).

Forest Service staff from the Chugach and Tongass National Forests, under a Sister Forest sponsored program, assisted scientists from the Magadansky Nature Reserve to map sites of Steller's Sea-Eagles in the Magadan Region of Russia. Surveys were conducted by boat, foot, and ultralight aircraft along rivers draining the interior and coastal reaches adjacent to the Sea of Okhotsk. Forest Surveyors mapped Steller's Sea-Eagle nests and significant geographic features using a Trimble Pathfinder Pro XL receiver with a Corvallis Micro Technology (CMT) MC-V data collector and/or a Trimble Ensign hand-held receiver. We down loaded data files from the Pathfinder Pro XL receiver to a portable 486 computer with Trimble's PFINDER software, and portrayed the data on a map trace depicting eagle nests and other raptor sightings. We cooperatively worked with an international team in capturing birds, attaching bands, tags and/or satellite transmitters, and collected biological data. During summers from 1995 to 1997 our teams mapped eagle locations on interior rivers (the Kava, Tauy, Chelomdzha, and Yma Rivers) and in coastal habitats from the Koni Peninsula near Magadan to 450 km southwest to the city of Okhotsk. This project is scheduled to continue in 1998, but funds remain unsecured.

THIRTY YEAR POPULATION TREND OF ADULT BALD EAGLES IN SOUTHEAST ALASKA (ABC ABSTRACT), Michael J. Jacobson and John I. Hodges (Migratory Bird Management, USFWS, 3000 Vintage Boulevard, Suite 240, Juneau, AK, 99801).

Six aerial surveys to estimate the adult Bald Eagle population size in southeast Alaska were conducted from 1967 to 1997. A stratified random sampling method was used with 166 km^2 size plots. All surveys were flown in late April and early May when many adults were near nest sites. The estimated population size of adult Bald Eagles in southeast Alaska increased from 7,230 (± 896) in 1967 to 12,026 (±3,108) in 1997 (95% confidence limit). The population reached a peak of 13,341 (±2,348) in 1992. The increase of the adult Bald Eagle population probably represents a recovery from the effects of the 1917-1953 eagle bounty in Alaska when as many as 150,000 Bald Eagles were killed. The later establishment of protection zones at eagle nest trees and other key waterfront habitat on national forest lands (80% of the land base) has likely contributed to the rise in Bald Eagle numbers.

NAKNEK DRAINAGE BALD EAGLE PRODUCTIVITY DECLINES WITH SPRING RAIN (ABC ABSTRACT), Susan E. Savage (Alaska Peninsula/Becharof National Wildlife Refuge Complex, P.O. Box 277, King Salmon, AK, 99613).

Bald Eagle surveys were conducted in the Naknek drainage of Katmai National Park from 1991 to 1997 using fixed-wing aircraft. May activity survey and July production survey dates were standardized from 1993 to 1997. Surveys resulted in the following information: number of empty nests, number of occupied nests, number of active nests (subset of occupied), number of successful nests, number of chicks produced, individual nest histories, nest substrate use, and several calculations of Naknek drainage eagle nest productivity. Total chicks produced ranged from 7 in 1994 and 1995 to 24 in 1991. Nest productivity (measured as chicks-per-occupied-nest) ranged from 0.44 chicks in 1994 and 1995 to 0.94 chicks in 1992. Nest productivity was compared between years using non-parametric tests. No significant differences in chicks-per-successful-nest, chicks-per-active-nest, or chicks-per-occupied-nest were found. Eagle productivity measures were correlated with King Salmon rain data. Significant negative correlations ($P = 0.05$, $P = 0.01$) were found when April rain, May rain, or the sum of April and May rain were tested against productivity measures chicks-per-occupied-nest, chicks-per-active-nest, or total chicks. These data show that dry springs are associated with higher Bald Eagle chick production. Nest activity information was also used in an aircraft management policy that may have positively influenced individual nest production.

ALASKA BALD EAGLE ATLAS VIA THE INTERNET (ABC ABSTRACT), Schempf, Philip F. (Migratory Bird Management, USFWS, 3000 Vintage Blvd., Suite 240, Juneau, AK, 99801) and John Stroud (ESRI-Alaska, 2020 Abbott Rd., Anchorage, AK, 99507).

Since at least the 1960's, biologists have collected data on Bald Eagle nests across Alaska. These data have been stored in a wide variety of formats and locations. Undoubtedly and unfortunately, some of these records have been lost due to changes in personnel, the lack of a central repository for the information and inconsistent archiving efforts. Much of the data still in existence is not available to the people who need access to it. Existing records on topographic maps, data cards and field notes are widely scattered and often at least partially redundant of similar data stored elsewhere. To resolve these problems and stimulate a statewide cooperative effort to collect and archive Bald Eagle nest data in a consistent manner, a relational database of bald eagle nest attributes and a geographic information system of nest site locations was created. A single master data set will reside on a server accessible via the Internet, minimizing problems noted above. A draft version of the database and geographic information system will be demonstrated.

THIRTY-FIVE YEAR BALD EAGLE NESTING POPULATION TREND ON THE KODIAK NATIONAL WILDLIFE REFUGE (ABC ABSTRACT), Denny Zwiefelhofer (Kodiak National Wildlife Refuge, 1390 Buskin River Road, Kodiak AK, 99615).

Aerial surveys for nesting Bald Eagles began on the Kodiak National Wildlife Refuge in 1963. Since surveys started, Bald Eagle nesting activity has increased 190% while the number of young Bald Eagles fledged increased approximately 150%. Kodak refuge personnel surveyed refuge Bald Eagle nesting and productivity on all Kodiak refuge lands during May and July of 1997. The last comprehensive Bald Eagle nesting surveys were conducted in 1992. A nest occupancy rate of 52% in 1997 (n = 1,010 nests) was comparable to the 1992 (50%, n = 878 nests) comprehensive survey results but down from the historic nest occupancy rate (60%). Production was verified for 518 nests found to be active or occupied in May. Of the 518 nests, 280 were successful in producing 423 young. The 1997 nesting success rate of 54% was lower than 1992 (58%) and historic (65%) nest success rates. The 1997 nest productivity parameters were somewhat lower (0.8 fledglings/May occupied nest; 1.5 fledglings/July successful nest) than 1992 and the historic averages (0.91 and 1.01 fledglings/May occupied nest; 1.56 and 1.55 fledglings/July successful nest, respectively).

STATUS OF PEREGRINE FALCONS AND BALD EAGLES IN THE YUKON-TANANA UPLANDS OF EAST CENTRAL ALASKA (ABC ABSTRACT), Robert J. Ritchie and John R. Rose (ABR, Inc., Environmental Research and Services, P.O. Box 80410, Fairbanks, AK , 99708).

Since 1994, we have conducted annual aerial surveys, primarily by helicopter, for nesting raptors in the tributary drainages of the Yukon and Tanana rivers in east-central Alaska. Objectives included locating nests and monitoring their productivity for Peregrine Falcons and Bald Eagles, as part of a cooperative study to measure the impacts of U. S. Air Force jet aircraft on raptors in Military Operating Areas within this region. Peregrine nests were most abundant on riparian cliffs and in upland areas on drainages south of the Yukon River (Birch Creek, Salcha River, Forty-Mile River, and Seventy-Mile River). More than 110 cliff sites with some history of occupancy by peregrines were identified during the study. The Tanana-Yukon Uplands appear to be a major area being reoccupied by the expanding Peregrine Falcon population in interior Alaska, and the status of recovery of peregrines in this region is discussed. Bald Eagles also were more abundant south of the Yukon River. Bald Eagles were common north of the Yukon only on the Black River, although nesting success (<30%) and, consequently, productivity of this population was low compared to eagles nesting on tributaries of the Tanana River. Information on the distribution and abundance of other large raptors, notably Gyrfalcons, Golden Eagles, and Ospreys also is presented.

BREEDERS, MOVERS, AND FLOATERS — AMONG-YEAR MOVEMENTS OF NORTHERN GOSHAWKS ON THE TONGASS NATIONAL FOREST AND IMPLICATIONS FOR MONITORING (ABC ABSTRACT), Kim Titus, Richard E. Lowell (Wildlife Conservation, ADF&G, Box 240020, Douglas, AK, 99824), and Craig F. Flatten (ADF&G, 2030 Sea Level Drive, Suite 205, Ketchikan, AK, 99901).

We radiotagged 49 adult goshawks from 1992 to 97 and used extensive aircraft tracking to monitor among-year movements, pairing, and nest locations. Goshawks were captured at active nests and produced young in their year of capture. We considered 5 outcomes when summarizing among-year movements: 1) nesting in same forest stand, 2) not nesting but in same use area, 3) nesting in alternate forest stand but in same use area, 4) nesting in new stand in new use area, and 5) floating. We used a bird-year as a sampling unit which represents the known fate of a goshawk across 2 breeding seasons. For 10 adult males representing 15 bird-years, 2 males moved a total of 3 times, all within their original use area. The maximum movement to a new nest by a male was 2.9 km. We could not locate active nests for 4 males whose mates moved or died after the previous nesting season. For 13 adult females representing 24 bird-years, 9 moved to different nesting areas and 3 moved to a different nest stand within their original use areas. The maximum movement between nests by a female was 150 km. Our data suggest 4 instances of non-nesting and floating by adult females that previously produced young. Results suggest that long-term monitoring of nest stands for activity will only meet a limited set of objectives. Inferences about territory occupancy and population status requires a complete study area search or some other sampling framework.

INFORMATION AND EDUCATION

Brad Andres, U. S. Fish and Wildlife Service

RESOURCES

Mark Schroeder and I finished up the BPIF slide show in July and mailed several copies to each agency liaison. If you need to borrow a copy, I have some to lend.

Deb Dubec is still working on the migration poster. I hope to have a finished product this spring. However, I don't think it will be printed by IMBD. The poster will depict the migration path of a yellow wagtail, Smith's longspur, blackpoll warbler, Swainson's thrush, and Pacific-slope flycatcher. Tidbits of life history information will be added for each species.

Heather Johnson, U. S. Fish and Wildlife Service, Regional Office, answered my request for an I&E chair and is thus appointed.

Please check out Karen Murphy's website on neotropical migrants:
http://www.alaskana.com/birds/

We discussed producing a BPIF homepage at the December meeting and Collen Handel and Steve Matsuoka (USGS-BRD) are undertaking this task. We identified a few elements that it should contain: information on monitoring programs, newsletters (International, WWG, BPIF), a BPIF project list, and links to other Alaska bird sites and birding events.

FIVE YEARS OF PARTNERS IN FLIGHT IN ALASKA (ABC ABSTRACT AND PRESENTED AT PIF-WWG MEETING IN VANCOUVER), Brad A. Andres (U. S. Fish and Wildlife Service, 1011 East Tudor Road, Anchorage, AK, 99503).

The main purpose of the Boreal Partners in Flight Working Group is to develop and coordinate a network of integrated research, monitoring, and educational programs specific to Neotropical migratory landbirds that breed in Alaska and Yukon. Since its formation in March 1992, the Partners in Flight initiative has greatly expanded research, monitoring, and educational efforts for landbirds in Alaska and has demonstrated a willingness of agencies and nongovernmental organization to commit to establishing a viable landbird conservation program. We continue to maintain, or expand, monitoring programs such as the Breeding Bird Survey, off-road point counts, migration banding stations, and Monitoring Avian Productivity and Survivorship (MAPS) stations. Our education efforts (including a bird song CD, a slide show, school presentations, a poster, and International Migratory Bird Day activities) has raised the awareness of the public, and professionals, about the conservation issues facing landbirds. In the next few years, Boreal Partners in Flight is faced with the task of evaluating existing monitoring efforts and implementing an integrated, comprehensive, and well-designed plan for the conservation of migratory landbirds in Alaska.

INTERNATIONAL MIGRATORY BIRD DAY AND THE NORTH AMERICAN MIGRATION COUNT

BPIF members continue to participate in International Migratory Bird Day in a number of ways: radio and TV spots, bird-banding demonstrations, and bird walks. The Hummingbird Festival in Ketchikan and both the Copper River Delta and Kachemak Bay shorebird festivals conduct activities that share the IMBD theme. We encourage you to keep providing these activities to your communities.

A packet describing resources available for IMBD '98 will be sent shortly. Although IMBD is officially May 9, 1998, we decided to celebrate IMBD between May 8 and May 17 in Alaska. Anchorage is planning to hold an event at Kincaid Municipal Park on Sunday, May 17th.

The second Alaska-wide North American Migration Count was held between May 3 and May 11, 1997. During this period, 115 individuals, in 10 groups, conducted counts and recorded 169 species. Following are a complete species list and a list of all count participants. As last year, the Kachemak Bay group lead the state with 119 species. On their count, they recorded a single Eurasian Wigeon and seven Upland Sandpipers. Observers at Cape Peirce recorded 13,000 Black Brant on May 10th and Brian McCaffery recorded a Slaty-backed Gull at Cape Romanzof.

Please contact Brad Andres if you need NAMC forms for 1998. Otherwise, use those we had in 1997. The official NAMC day is May 9th.

1997 International Migratory Bird Day — North American Migration Count (169 species)

Red-throated Loon
Pacific Loon
Common Loon
Yellow-billed Loon
Horned Grebe
Red-necked Grebe
Sooty Shearwater
Double-crested Cormorant
Pelagic Cormorant
Red-faced Cormorant
Tundra Swan
Trumpeter Swan
Greater White-fronted Goose
Snow Goose
Emperor Goose
Brant
Canada Goose
Green-winged Teal
Mallard
Northern Pintail
Northern Shoveler
Gadwall
Eurasian Wigeon
American Wigeon
Canvasback
Ring-necked Duck
Greater Scaup
Lesser Scaup
Common Eider
King Eider
Spectacled Eider
Steller’s Eider
Harlequin Duck
Oldsquaw
Black Scoter
Surf Scoter
White-winged Scoter
Common Goldeneye
Barrow's Goldeneye
Bufflehead
Common Merganser
Red-breasted Merganser
Osprey
Bald Eagle
Northern Harrier
Sharp-shinned Hawk
Red-tailed Hawk
Rough-legged Hawk
Golden Eagle
American Kestrel
Merlin
Peregrine Falcon
Ring-necked Pheasant
Ruffed Grouse
Spruce Grouse
Willow Ptarmigan
Rock Ptarmigan
Sharp-tailed Grouse
Sandhill Crane
Black-bellied Plover
American Golden-Plover
Pacific Golden-Plover
Semipalmated Plover
Black Oystercatcher
Greater Yellowlegs
Lesser Yellowlegs
Solitary Sandpiper
Wandering Tattler
Spotted Sandpiper
Upland Sandpiper
Whimbrel
Hudsonian Godwit
Marbled Godwit
Ruddy Turnstone
Black Turnstone
Surfbird
Red Knot
Sanderling
Semipalmated Sandpiper
Western Sandpiper
Least Sandpiper
Baird's Sandpiper

Pectoral Sandpiper
Rock Sandpiper
Dunlin
Short-billed Dowitcher
Long-billed Dowitcher
Common Snipe
Red-necked Phalarope
Pomarine Jaeger
Parasitic Jaeger
Long-tailed Jaeger
Bonaparte's Gull
Mew Gull
Herring Gull
Slaty-backed Gull
Glaucous-winged Gull
Glaucous Gull
Black-legged Kittiwake
Caspian Tern
Arctic Tern
Aleutian Tern
Common Murre
Pigeon Guillemot
Marbled Murrelet
Kittlitz's Murrelet
Tufted Puffin
Rock Dove
Great Horned Owl
Northern Hawk Owl
Short-eared Owl
Boreal Owl
Northern Saw-whet Owl
Rufous Hummingbird
Belted Kingfisher
Downy Woodpecker
Hairy Woodpecker
Three-toed Woodpecker
Northern Flicker
Hammond's Flycatcher
Say's Phoebe
Horned Lark
Tree Swallow
Violet-green Swallow
Gray Jay
Steller's Jay
Black-billed Magpie
Northwestern Crow
Common Raven
Black-capped Chickadee
Chestnut-backed Chickadee
Boreal Chickadee
Red-breasted Nuthatch
Brown Creeper
Winter Wren
American Dipper
Golden-crowned Kinglet
Ruby-crowned Kinglet
Gray-cheeked Thrush
Swainson's Thrush
Hermit Thrush
American Robin
Varied Thrush
American Pipit
Bohemian Waxwing
Northern Shrike
Orange-crowned Warbler
Yellow Warbler
Yellow-rumped Warbler
Townsend's Warbler
Blackpoll Warbler
Wilson's Warbler
American Tree Sparrow
Savannah Sparrow
Fox Sparrow
Song Sparrow
Lincoln's Sparrow
White-crowned Sparrow
Golden-crowned Sparrow
Dark-eyed Junco
Lapland Longspur
Snow Bunting
Red-winged Blackbird
Rusty Blackbird
Pine Grosbeak
White-winged Crossbill
Hoary Redpoll
Common Redpoll
Pine Siskin

1997 International Migratory Bird Day
Bird Count Participants

Bethel — 32 species; Chris Harwood and 37 Bethel community members

Cape Romanzof — 44 species; Brian McCaffery

Denali National Park — 48 species

Michelle Ambrose
Chip Barker
Andrea Brand
Rick Boretti
Sue Deyoe
Nan Eagleson
Carol McIntyre (compiler)
Linda Norris
Lynn Palmquist
Jan St. Peters
Midori Raymore
Dianna Swaim
Michael Swain
Ed Vorisek

Dillingham — 83 species

Andy Aderman
Aaron Archibeque
Katherine Carscallen
Vern Carscallen
Rob Doyle
Eric Holland
Denise Lisac
Mark Lisac
Rob MacDonald
John Moran
George Nelson
Joanne Nelson
Michelle Smith
Carol Wilson (compiler)

Galena — 33 species

Buddy Johnson (compiler)
Heather Johnson
Karin Lehmkuhl
Lisa Saperstein
Mike Spindler

Glenallen Area — 64 species

Janissa Balcomb
Kari Barnard
Laurie DeWispelaere (compiler)
Brad Henspeter
Melissa Hronkin
Althea Hughes
Kathy Liska
Ruth McHenry
Ted McHenry
Vanessa Johnson
Kenneth Roberson
Vicki Snitzler

Kachemak Bay — 119 species

Ed Bailey
Amy Bollenbach
Marcus Bradley
Dale Chorman
Willy Dunne (compiler)
Nina Faust
Conrad Field
Mossy Kilcher
Rich Kleinleder
Jack Morgome
Anne Wieland

Seward — 76 species; Brad Andres and Dana Bruden

Tok — 69 species

Terry Doyle (compiler)
Kim Fluetsch
Rebecca Joyce
Keith Larson
Kathy O'Reilly-Doyle
Mark Rutherford
Bob Schulz
Hank Timm
Jacob Timm
Jeb Timm
Mary Timm
Molly Timm
Richard Voss

Yakutat — 68 species; Brad Andres, Brian Browne, Octavio Cruz, and Mike St. Germain

CONSERVATION PLANNING - BIOGEOGRAPHIC REGION REPORTS

WESTERN BIOGEOGRAPHIC REGION

Brian McCaffery, Yukon Delta NWR

Members of the western biogeographic BPIF working group (including biologists from western and southwestern Alaska) addressed a number of topics at the most recent BPIF meeting. Most of the discussion focused on high priority species (ranks of 17-25 in the western bioregion) and how to most effectively monitor them. These discussions, as well as some subsequent considerations, are summarized here. For the purposes of this report, "western Alaska" refers to the western and southwestern biogeographic regions combined.

Species Unique to Western Alaska

McKay's Bunting

The McKay's Bunting is the only species of passerine endemic to Alaska. The breeding range is restricted to St. Matthew and Hall islands in the Bering Sea, and comprises only 300 km^2. The estimated breeding population size (based on average Snow Bunting densities elsewhere in North America) is only 2,800 birds, and the most liberal estimate of population size is < 6,000 birds. The species is apparently most common in the coastal lowlands of the islands, and nests most commonly on shingle beaches.

Insular populations of birds are particularly vulnerable to extinction. The McKay's Bunting has a tiny range, a tiny population, and the low coastal habitats it prefers are most vulnerable to disturbance from both oil spills and the potential threat of introduced predators (e.g., rats). The recent shipwreck on St. Matthew Island highlights the reality of both types of threats. The Fish and Wildlife Service should conduct a population inventory of the species. In addition, a more detailed analysis of habitat use (throughout the breeding season) would improve our ability to predict the effects of potential perturbations. Finally, a preliminary evaluation of the utility of providing rat-proof nesting boxes might provide the Service with a management tool in case rats do accidentally reach the breeding islands.

Old World Passerines

Six species of migrants that winter in the Old World nest regularly in western Alaska, including Arctic Warbler, Bluethroat, Northern Wheatear, Yellow Wagtail, White Wagtail, and Red-throated Pipit. Among these, White Wagtail and Red-throated Pipit are probably too rare and localized to justify a concerted monitoring effort. Although the other four species are considerably more abundant and widespread, efforts to adequately monitor their populations will remain challenging in the foreseeable future. Nearly 20 BBS routes are currently active in western Alaska, but Bluethroats and Northern Wheatears have been detected on only 2 and 4

routes respectively. Even on the routes where they occur, they average < 1.00 bird/route. Investigations at Cape Romanzof suggest that 1) wheatears can become extremely cryptic once incubation begins, and 2) bluethroats can be very cryptic throughout the breeding season, and display behavior is surprisingly unpredictable. Without considerably more effort than currently envisioned in western Alaska, we may not be able to monitor these species on a regional level.

Prospects for monitoring Arctic Warbler and Yellow Wagtail are considerably better. Although neither species is currently detected on more than 10 BBS routes (7 for Arctic Warbler, 9 for Yellow Wagtail), detection frequencies on the routes where they occur are reasonably high (27 and 10 individuals/route, respectively). If researchers can refine the methodology for incorporating both BBS data and Off-Road Point Count (ORPC) data into a single trend estimate, the addition of relatively few routes of either kind in western Alaska might allow for effective monitoring of Arctic Warblers and Yellow Wagtails.

Recent research at Cape Romanzof also indicates that dedicated site-specific inventories may be feasible for tracking populations of Northern Wheatears and Yellow Wagtails. Northern Wheatears are particularly conspicuous during nest-building, and in 1997, 79% of all nests discovered (11 of 14) were located during a 12-day period prior to incubation. Ten of these 11 were located during a 10-day period prior to egg-laying (5/29 - 6/7). For Yellow Wagtails, 64% of all nests found (18 of 28) were discovered in a 2-week from egg-laying to early incubation (6/4 - 6/17), and 93% of nests (26 of 28) were located in the 3-week period between 6/4 and 6/24. A concerted 2-week effort at nest-finding might be sufficient to monitor local populations of these species.

Raptors

Four high-priority raptor species occur in western Alaska, including Golden Eagle, Gyrfalcon, Rough-legged Hawk, and Short-eared Owl. The three falconiforms are not well-represented on current BBS routes, occurring on only 3, 6, and 5 routes, respectively. Even on the routes where they occur, none average >1.00 bird/route. A more feasible monitoring strategy would be to establish and annually survey a network of sites throughout western Alaska that are known to support high nesting concentrations of these species. Although statistical inference precludes extrapolating the results of these non-random sites to the entire western region, common sense indicates that this may be the only means to track these cliff-nesting raptor populations for management purposes.

Short-eared Owls average 1.05 birds/route on the 8 routes where they have been detected. Because their populations fluctuate so dramatically in response to small rodent numbers, however, our ability to monitor trends in western Alaska is severely restricted. No special effort should be made to target this species for monitoring.

New World Passerines

Western Alaska supports breeding populations of five high-priority passerine species that spend all of their lives in the New World, including Gray-cheeked Thrush, Northern Shrike, Blackpoll Warbler, Golden-crowned Sparrow, and Rusty Blackbird. With the exception of Northern Shrikes (which have been found on only 2 BBS routes, averaging 0.08 birds/route), these passerines can probably be effectively monitored at the regional level in western Alaska. Gray-cheeked Thrush, Blackpoll Warbler and Golden-crowned Sparrow occur on 16, 11, and 14 current BBS routes, respectively, and average 28, 22, and 34 birds/route, respectively, on the routes where they occur. With the inclusion of ORPC data, it seems likely that these 3 species can be monitored at the current level of sampling intensity. Rusty Blackbirds have been detected on only 5 BBS routes (averaging 5 birds/route), but the addition of only a few more riparian routes (BBS, modified BBS, or ORPC) might increase blackbird detections sufficiently to monitor this species as well.

Plans and Recommendations for 1998

1. Maintain the currently active BBS routes. The addition of new routes where feasible remains the highest priority use for new funding/personnel directed at passerine monitoring

2. Maintain ORPCs, particularly those sampling medium and tall shrub thicket habitats. Consider re-allocating effort, or prioritizing routes, to ensure increased and then consistent coverage of these thicket habitats.

3. Evaluate the magnitude of habitat change on the Alaska Peninsula. Recent findings suggest that shrub habitat is expanding on the peninsula. Monitoring the change in habitat is important for 1) tracking changes in distribution and abundance of shrub-dwelling passerines, and 2) evaluating whether population trends are the result of increases within established habitats or simply a function of birds occupying new habitats.

4. Identify and census swallow colonies that can be monitored readily on an annual basis.

5. The working group realized that the current sampling intensity might be adequate (or nearly adequate) to monitor a number of common species in addition to the region's high-priority target species. Such an ability would allow BPIF to evaluate regional differences in population trends. To facilitate planning for such an effort, we request USGS-BRD to determine the number of routes (with detections) necessary to detect population trends in the following species, within a 12-15 year period, with alpha = 0.15: Alder Flycatcher, Gray-cheeked Thrush, Yellow Wagtail, Orange-crowned Warbler, Yellow Warbler, Blackpoll Warbler, Northern Waterthrush, Wilson's Warbler, American Tree Sparrow, Savannah Sparrow, Fox Sparrow, Golden-crowned Sparrow, White-crowned Sparrow, and Lapland Longspur.

NORTHERN BIOGEOGRAPHIC REGION

Proposal for the Colville River Bird Conservation Area

Dave Yokel, BLM Northern District Office

Bird Conservation Areas (BCA) are part of the overall strategy of Partners in Flight (PIF). The PIF program was initiated in 1990 by the National Fish and Wildlife Foundation to promote the conservation of bird diversity in North America. Since many species that breed in Canada and the United States spend the non-breeding season in Central and South America, this effort must be coordinated across many boundaries. PIF is not an organization, but a cooperative effort dedicated to the long-term well being of the birds of the western hemisphere. Participants in PIF include non-governmental organizations, state/provincial and federal agencies, academicians and private industry in several nations.

BCAs are large areas that sustain or are capable of sustaining healthy populations of birds. Typically they include multiple cooperating landowners who voluntarily coordinate their management practices to provide a constant base of habitat needed by birds. The nature of bird conservation efforts in these areas must be compatible with other social and economic priorities. The BCA program is coordinated in the U.S. by the American Bird Conservancy, a non-governmental organization.

Alaska can be divided into six biogeographic regions that are distinct from one another in the general characteristics of their vegetation and avian communities (Kessel and Gibson, 1978). The northern region comprises all lands north of the Brooks Range crest (i.e. Alaska's North Slope). While tussock tundra and wetland communities are widespread across the North Slope, low (>30 cm but <1.5 m) shrub communities are largely, and tall ($\geq$1.5 m) shrub communities are entirely, limited to riparian systems, with the latter restricted to the larger rivers (Kessel and Cade, 1958). The Colville is the largest river on the North Slope, rising in the central Brooks Range and draining into the Arctic Ocean near the village of Nuiqsut, and includes the greatest concentration of riparian shrubs in the region.

As a result of the distribution of vegetation types throughout the North Slope, avian species that are associated with tundra/wetland communities, such as waterfowl and shorebirds, are dispersed widely. However, most North Slope passerine (songbird) species are associated with shrub communities, and are concentrated along stream drainages. Thus the Colville River provides the largest expanse of passerine habitat on the North Slope, resulting in a passerine community unsurpassed elsewhere in the region for both abundance and diversity. Thirteen shrub-dependent passerine species are regular breeders here (Kessel and Cade, 1958).

Three of these species are North American migrants. They move south for the non-breeding season, but spend that season primarily north of the U.S.-Mexican border. They are the northern shrike, American tree sparrow and redpoll. Seven species are neotropical migrants, meaning that

a significant proportion of each species spends the winter south of the U.S.-Mexican border in the tropics of the "new world." These can be broken further into two groups. Among the first group, a majority of each species' winter range is north of the U.S.-Mexican border, but a substantial portion is nonetheless in Central and South America. These are the American robin, savannah sparrow, white-crowned sparrow and fox sparrow. For the second group, the majority of each species' winter range is south of the U.S.-Mexican border. These are the gray-cheeked thrush, yellow warbler and Wilson's warbler. Finally, there are three species of paleotropical migrants; when the breeding season ends these birds migrate west into Siberia and then south into the old world tropics of Asia, India and Africa. They are the bluethroat, arctic warbler and yellow wagtail.

The Colville River also provides the most extensive system of steep bluffs on the North Slope, providing nesting sites for cliff-nesting raptors and another passerine, the common raven. As a result, a significant proportion of the North Slope's arctic peregrine falcon, gyrfalcon and rough-legged hawk populations nest along this river. The peregrine was recently delisted from threatened status; its population along the Colville River has been monitored since 1952 providing an excellent long-term data base for population trends in this subspecies.

Because of its exceptional concentrations of tall shrub communities and passerine species relative to the rest of the North Slope, its significant population of the recently delisted arctic peregrine falcon, and its major contribution to long-term avian monitoring on the North Slope, the Colville River is an excellent candidate for BCA status. Additional biological values of the area that would be conserved under BCA status are the winter habitat that the riparian shrubs provide for moose, snowshoe hare and willow ptarmigan, and habitat for the rare plant species *Potentilla stipularis.*

In its Draft Environmental Impact Statement for the Northeastern National Petroleum Reserve - Alaska (NPR-A), the Bureau of Land Management (BLM) has proposed BCA status for a section of the Colville River from the mouth of the Killik River to the mouth of the Kikiakrorak River, a reach of about 110 miles. The area outlined totals 264,490 acres of which 81,909 acres are within NPR-A. The Arctic Slope Regional Corporation holds title to 46,338 acres within the proposed BCA and has selected an additional 93,795 acres. The State of Alaska holds title to 41,168 acres and has selected 1,280 acres more.

The primary uses of the area at present are subsistence activities by North Slope residents and petroleum exploration. There is also a secondary component of recreational use by non-local people. Possible threats to the riparian and cliff habitats are petroleum development, sand/gravel extraction, coal or other mining, and construction of transportation and utility corridors.

The BLM would propose that the three landowners voluntarily agree to manage their lands in the area in a coordinated manner so if development occurs only some agreed upon proportion of the low and tall shrub habitats would be lost to development during any period of time. Currently within the 264,490 acres of the proposed BCA are 34,835 acres of low shrub and 28,915 acres of

tall shrub. Since none of the passerines except the common raven have large individual home range sizes the distribution of development within each shrub type would not be an important parameter. Much more important would be the distribution between shrub types and the total area of shrub habitat available at any time.

In addition to the biological values of the area are its cultural and social values. Subsistence activities, including hunting and fishing, are an integral part of the Inupiat Eskimo culture and have much greater importance to that culture than just the provision of food items. The Colville River is used by hunters of Nuiqsut and Barrow as a travel corridor and for subsistence activities. There are Native Allotments and subsistence cabins along its shore today, and its use as a trade route is assumed to extend back beyond recorded history. Although no extensive search of the Colville River system for archaeological sites has been conducted, it is assumed due to the presence of some known sites that many others exist dating back to 11,000 years ago.

Literature Cited:

Kessel, B., and D.D. Gibson. 1978. Status and distribution of Alaska birds. Studies Avian Biol. 1:1-100.

Kessel, B., and T.J. Cade. 1958. Birds of the Colville River, northern Alaska. Biol. Papers Univ. Alaska. No. 2:1-83.

CENTRAL BIOGEOGRAPHIC REGION

Action Priorities for Calendar Year 1998

John Wright, Alaska Dept. of Fish and Game

A. Highest Priority — Effects of Logging on Birds in Mature Riparian White Spruce

1. Initiate preliminary studies to provide basis for future research.
    a. coordinate point count routes (John Wright, Merry Maxwell?).
        - Fairbanks (ABO, Boreal Forest Council, FWS, ADFG).
        - Delta (ADFG).
        - Tok (FWS-Tetlin NWR).
        - Nenana (?)
    b. identify funding sources.
        - Challenge cost/share grant (FWS, Kanuti NWR - Merry Maxwell).
        - DOD funds (Ft. Wainwright - Pam Bruce).
    c. include early season coverage for resident and short-distance migrants.
    d. include winter surveys for resident species, especially spruce habitats known to be important to many resident species.

2. Cooperate and support efforts by the Alaska Bird Observatory and Boreal Forest Council to initiate studies.
3. Correspond with Canadians to find out what work they have done on the effects of timber harvesting on bird communities (Terry Doyle).
4. Conduct literature review (Boreal Forest Council?).
5. Identify and incorporate partners (Ft Wainwright; ABO; Boreal Forest Council; FWS-NWRs, -NAES; BLM-Steese/White Mtn; ADFG; UAF; ADNR-Div of Forestry; Native corporations).
6. Verify the quantity and harvest schedule of mature riparian white spruce to determine if this habitat is most vulnerable (ADNR-Forestry, John Wright).

B. Second Priority — Effects of placer mining and other impacts on riparian willow habitats.

1. Attempt to quantify the loss of riparian habitats within BLM Steese-White Mtn area - BLM, FWS-NAES, ADFG Habitat?
2. Encourage FWS-NAES, BLM and others to continue bird studies.

C. Another priority — Sample size and allocation of off-road point counts in central Alaska.

1. Determine the sample size needed to monitor landbird populations in the central Alaska biogeographic region (Terry Doyle, Colleen Handel).
2. Design a sampling strategy to monitor landbird populations in the central Alaska biogeographic region, including sample size and allocation (Terry Doyle, Colleen Handel).
3. Identify and suggest partners to contribute to this design.

SOUTHCOASTAL BIOGEOGRAPHIC REGION

Spring Owl Surveys on Fort Richardson in 1997.

Brian T. Browne and Brad A. Andres, U.S. Fish and Wildlife Service

We conducted owl surveys during Mar - Apr at 2 locations on Fort Richardson. Owl survey routes were established on parts of the existing BBS routes; each owl survey route consisted of 20 stops placed at 0.8 km intervals.

We surveyed routes during 3 time periods: 15-31 Mar, 1-15 Apr, and 16-30 Apr. Routes were surveyed on different nights, usually within 4 days of each other. Surveys were begun 1-1.5 hr after sunset and took about 4 hr to complete. Cloud cover (%) and wind speed and direction were noted at the beginning and end of each survey. Surveys were not conducted when winds were > 24 km/hr. At each stop, 2 observers recorded all owls heard during a 7-min listening period. Approximate owl locations were mapped to eliminate double-counting and the training

area location of detection was determined. No playback tapes were used to stimulate owl call responses.

We completed 3 owl surveys on each route during Mar and Apr 1997. One survey of the Alpenglow route was shortened (16 stops) due to snow conditions. In Table 2, we present the total number of owls, by species, from both routes during each of the 3 time periods.

We recorded 3 species of owls on both routes. We estimated the maximum number of owls, by species, detected during all surveys by excluding duplicate records of birds that occurred at the same stop during different time periods. The boreal owl was the most common species with 9 birds recorded at 8 different stops. Seven great-horned owls were recorded at 6 stops, and 6 northern saw-whet owls were recorded at 6 stops.

Table 6. Number of owls, by species, during the 3 survey periods, and the maximum number of independent birds and number of stops where they were recorded.

Species	Number of birds			Maximum no. of birds	No. of stops
	Period 1	Period 2	Period 3		
Great Horned Owl	2	1	4	7	6
Northern Saw-whet Owl	1	3	3	6	6
Boreal Owl	4	2	4	9	8
All species	7	6	11	22	-

The greatest number of owls (11 individuals) were recorded during survey period 3 (Table 6). Nine owls were detected on a 17 Apr survey of the Fort Richardson route and constituted >35% of all owl detections; fewer owls were recorded during period 1 (7 owls) and period 2 (6 owls).

Owls were more abundant on the north side of the base than on the Arctic Valley side. Fifteen owls were recorded at 10 different stops on the Fort Richardson route compared to 9 owls at 7 stops on the Alpenglow route. We recorded owls on 8 training areas, near Otter Lake, and by the Moose Run golf course (Table 7).

Training areas 6B and 11E had the most owls (6 each). Four owls were recorded in area 6B on one survey (period 3) alone. Thirty-six of the 40 stops (from both routes) were surveyed in all 3 periods. Distribution of owls across the 36 stops was as follows: 0 owls (19 stops), 1 owl (13 stops), 2 owls (2 stops), 3 owls (1 stop), and 4 owls (1 stop). No owls were detected on the 4 stops that were surveyed only twice.

Table 7. Number of owls, by location, recorded on Fort Richardson during March and April, 1997.

	Number of owls			
Training Area	Great Horned	Saw-whet	Boreal	All species
1A		1	1	2
1B			1	1
5	1			1
6B	2		4	6
9A			1	1
9B			1	1
11E	2	2	2	6
12A		1		1
Golf course	1	1		2
Otter Lake	1	2		3

We found an increase in owl detections on the Fort Richardson route from period 2 (3 owls) to period 3 (9 owls). However, owl detections on the Alpenglow route remained constant over all 3 periods (2-4 owls). Furthermore, the Fort Richardson route was surveyed on a completely clear night (0% clouds), whereas the Alpenglow route for period 3 was surveyed on a cloudy night (50% cloud cover) and 10 days later. Owl activity might have decreased in the time after the Fort Richardson survey and could have lead to a lower number recorded on the Alpenglow survey. However, owl activity is thought to be related to cloud cover and it is difficult to conclude that owl activity increased in period 3 due to temporal changes. We will attempt to reduce variability between routes by limiting all surveys to relatively clear nights (<50% cloud cover) in 1998. We will also compress the period of surveys to 1 month (16 Mar - 24 Apr), and increase the number of surveys from 3 to 5 (once a week). Surveys will be conducted on consecutive nights, weather permitting, to reduce temporal differences between sites.

SOUTHEASTERN BIOGEOGRAPHIC REGION

Brad Andres, U. S. Fish and Wildlife Service

Assessment of Off-road Point Count and Breeding Bird Survey Coverage in Southeastern Alaska

Following is an assessment of current off-road point count and BBS coverage in southeastern Alaska (Table 8-9; including Yakutat). Because of limited observers, changes in observers, and lack of roads, we decided at the December meeting that any expansion of landbird monitoring (counting techniques) should focus on off-road point count routes rather than BBS routes. Current ORPC effort tends to be clustered around Juneau and Ketchikan and new routes should be targeted away from these areas if possible (Table 9). We should maintain current coverage of BBS routes in southeastern Alaska and should strive to increase observer consistency (Table 8).

Table 8. Status of Breeding Bird Survey routes located in, or adjacent to, the Tongass National Forest.

Route	Observer	Years	Assigned in 1998?
Chichagof Island	Rutledge	94, 95	no, Pohl?
Craig	Brown	92, 94 - 97	yes
	Townsend	91	
	Matson	90	
	Garcia	88, 89	
	Whiting	87	
	Johnson	86	
	Lobello	85	
	Kogut	83, 84	
Haines	Andres	93 - 97	yes
	Muse	89, 91	
	Webster	72, 75	
Harlequin Lake	Andres	93 - 97	yes
Hoonah	Pohl	97	yes
	Rutledge	93 - 96	
Hyder	Smout	96, 97	yes

Route	Observer	Years	Assigned in 1998?
	Canterbury	94, 95	
Juneau	Rudis	89 - 97	yes
	Glass	83 - 86	
Ketchikan	Brown	93 - 97	yes
	Burns	92	
	Canterbury	91	
	West	89 - 90	
	Lanse	73, 74	
	Vincent	71, 72	
Mitkof Island	Walsh	88 - 96	Edgington
Sitka	Ward	93 - 96	Schank?
Skagway	Andres	93 - 97	yes
Stikine River	Robertsen	97	yes
Thorne Bay	Russell	94 - 97	yes
	Ford	92, 93	
	Townsend	91	
	Hollingsworth	89 - 90	
Whale Pass	Russell	97	yes
Yakutat	Andres	93 - 97	yes
	May	86	
Zarembo	Wise-Eagle	93 - 97	yes
Zimovia Strait	Wise-Eagle	88 - 97	yes
Discontinued routes			
Juneau II	Gordon	84 - 86	
Petersburg	Krueper	84	
	Walsh	87	
Sitka (30 stops)	Ward	84 - 92	

Table 9. Status of off-road point count transects in, or adjacent to, the Tongass National Forest.

Administrative unit	Route	Years	Surveyed in 1998?
Juneau Ranger District	Dan Moller Trail	93 - 95	yes?
	Dredge Crystal	93 - 96	?
	Eaglecrest Road	93 - 96	yes?
	Eaglecrest 2	93, 95	?
	Mendenhall Lake	93 - 96	?
	Moose Lake	93 - 96	yes?
	Moraine Ecology	93 - 96	?
	Outer Point	93	?
	Treadwell Ditch	93 - 95	yes?
	West Glacier	93 - 95	?
	East Glacier	93 - 95	yes?
Hoonah Ranger District	Big Cut	94 - 95	?
	Cann Creek	93	?
	Game Creek	93 - 95	?
	Upper Game Creek	94 - 95	?
Misty Fjords NM	Checats	97	yes
	Ella Bay	95 - 97	yes
	Manzanita	97	yes
	Winstanley	95 - 97	yes
Ketchikan Ranger District	Perseverance	95 - 97	yes
	Lower Thorne	95, 97	yes
	Upper Thorne	95, 97	yes
	Rio Roberts	95 - 97	yes
	Sarkar	97	yes
Alaska Maritime NWR	St. Lazaria Island	94 - 97	yes
Klondike Goldrush NHP	Chilkoot Trail	95, 97	yes

Preliminary Review of Monitoring Efforts for Management Indicator Species on the Tongass National Forest — Red-breasted Sapsucker, Hairy Woodpecker, and Brown Creeper

Following, I summarize current information on monitoring of the Red-breasted Sapsucker, Hairy Woodpecker, and Brown Creeper in southeastern Alaska. Information was gathered from three main sources: 1) Breeding Bird Survey Routes (USFWS), 2) off-road point counts (USFS, USFWS), and 3) breeding bird inventories conducted on Research Natural Areas and Alaska Army National Guard Training Areas (USFWS). I also present information, for comparison, on the Golden-crowned Kinglet.

Red-breasted Sapsuckers and Hairy Woodpeckers excavate their own nesting cavities, whereas Brown Creepers nest in natural tree crevices, behind loose bark, or rarely in cavities made by other species. Hairy Woodpeckers are resident in southeastern Alaska; most sapsuckers and some creepers undertake short-distance migrations. Although considered to be uncommon breeders throughout southeastern Alaska, few woodpeckers and creepers are detected during the once-annual BBS and densities of woodpeckers and creepers are magnitudes less than other common species (Table 10). Density of sapsuckers, on the other hand, is similar to that of Golden-crowned Kinglets (Table 10). Relative to BBS routes, all three MI species were recorded at higher abundances on breeding bird inventories (Table 11). In general, kinglets were more abundant than sapsuckers on these surveys. Detections of all three MI species were also fairly low on off-road point counts (Table 12). On routes conducted in Misty Fiords or on Prince of Wales Island, only the Red-breasted Sapsucker was consistently recorded in numbers that exceeded 1 bird/12-stop transect.

All datasets illustrate the effect that point/route placement has on estimating the abundance of birds. Overall, Hairy Woodpeckers and Brown Creepers were twice as abundant on breeding bird inventories on RNAs than on inventories on National Guard training areas (which are usually located near communities). Conversely, the Red-breasted Sapsucker was more abundant on training areas than on RNAs. Point count data from RNAs, compared to those from Prince of Wales Island, showed similar patterns (Table 12). Of all MI species, creepers show the greatest affinity for old growth forests (Table 13) and high abundances on RNAs may reflect this habitat preference; habitat use by Golden-crowned Kinglets is similar to that of creepers (Table 13). Sapsuckers appear to use forest edges and are more abundant along roadside BBS routes and on point count transects on Prince of Wales Island. Some spatial variation in abundance might be due to differences in observers' abilities to detect these species, particularly, for Brown Creepers. Differences in detectability might also have arisen from variability in the timing of surveys.

Preliminary Suggestions

1. Low densities of Hairy Woodpeckers and Brown Creepers indicate that the BBS is not a useful tool for monitoring these species (Table 14). Additionally, high inter-annual variation in BBS counts of these species would probably result in low power to detect population trends. Data from off-road point counts are better, but not by much. Placement of transects will be

critical to ensure a reasonable number of encounters. Point count methods appear to be a viable method to monitor Red-breasted Sapsuckers. Further power analysis of these methods for detecting trends in sapsuckers should be conducted.

2. Area searches might provide the best method for monitoring creepers and woodpeckers. I hope to work out power aspects of detecting differences for these procedures in the near future. Area search methods can be adapted to any spatial scale; abundance categories are based on birds/person-hour. For all methods, clear objectives for the monitoring need to be established. Are trends/changes in populations needed for the entire forest, certain districts, or only altered landscape units? What is the monitoring time frame; are annual estimates needed or can sampling occur at a longer interval.

3. If rigorous monitoring of creepers and woodpeckers is cost-prohibitive, perhaps could a surrogate species be used (e.g., Golden-crowned Kinglet) to quantitatively track population changes and a more cursory method be used to ensure that woodpeckers and creepers still occur within landscape units. Certainly, the surrogate(s) would need to strongly overlap in habitat use/preference with MI species.

4. A small research project could be initiated to determine seasonality of detectability in the MI species. Perhaps a survey conducted earlier in the season would substantially increase the number of individuals recorded on point count transects.

Table 10. Average abundance (birds/route) of selected species on BBS routes (n = 69 route-years) in, or adjacent to the Tongass National Forest.

Species	Birds/route	Species	Birds/route
Varied Thrush	54.3	Red-breasted Sapsucker	8.8
Pacific-slope Flycatcher	16.4	Hairy Woodpecker	1.3
Townsend's Warbler	13.2	Brown Creeper	0.7
Golden-crowned Kinglet	9.2		

Table 11. Abundance of Management Indicator Species, and the Golden-crowned Kinglet, at sites inventories for breeding birds in southeastern Alaska, 1997.

	Abundance of:			
Area	RBSA	HAWO	BRCR	GCKI
Dog Island RNA	rare	-	rare	uncommon
Ketchikan NGTA	rare	uncommon	occasional	fairly common
Old Tom Creek RNA	occasional	uncommon	fairly common	common
Craig NGTA	rare	-	rare	common
Rio Roberts RNA	-	uncommon	-	abundant
Kadin Island RNA	-	fairly common	common	abundant
Wrangell NGTA	uncommon	rare	-	fairly common
Petersburg NGTA	uncommon	-	occasional	rare
Kake NGTA	fairly common	rare	rare	fairly common
Cape Fanshaw RNA	uncommon	common	common	abundant
West Gambier Bay RNA	uncommon	occasional	fairly common	common
Sitka NGTA	uncommon	-	-	uncommon
Angoon NGTA	fairly common	rare	uncommon	uncommon
Limestone Creek RNA	uncommon	uncommon	uncommon	common
Juneau NGTA	uncommon	-	uncommon	fairly common
Hoonah NGTA	uncommon	-	rare	fairly common
St. James Bay NGTA	uncommon	rare	occasional	common
Haines NGTA	rare	uncommon	uncommon	common

Table 12. Abundance (birds/point) of Management Indicator Species, and the Golden-crowned Kinglet, on point counts in the Tongass National Forest.

	Average number (birds/point)			
	RBSA	HAWO	BRCR	GCKI
Research Natural Areas (*n* = 84 points)	0.02	0.07	0.32	1.05
Misty Fiords (*n* = 72 point-years)	0.05	0.00	0.01	-
Prince of Wales (*n* = 132 point-years)	0.14	0.05	0.05	-

Table 13. Occurrence of landbird Management Indicator Species in mature coniferous and successional stage forests in the Tongass National Forest.

	Old-growth		Successional Stage			
Species	tall closed[1]	medium open[2]	20 yrs[3]	11-17 yrs[4]	9 yrs[5]	<5 yrs[6]
Red-breasted Sapsucker	x[7]	x	x	x		
Hairy Woodpecker	x	x	x	x		r[7]
Brown Creeper	x	x				
Golden-crowned Kinglet	x	x	x	r		

[1] closed canopy forest dominated by large diameter hemlock/spruce associations
[2] open forest, primarily muskeg habitat, dominated by shore pine and mixed conifer associations.
[3] hemlock-spruce associations, trees <55 cm DBH
[4] hemlock/spruce saplings <13 cm DBH, deciduous shrubs
[5] similar to above but trees $\leq$2.5 cm DBH
[6] dense hemlock/spruce seedlings; deciduous shrubs and forbs
[7] x = commonly present; r = present only rarely

Table 14. Average abundance (birds/route) and interannual variation (SE) of Management Indicator Species (and the Golden-crowned Kinglet) on BBS routes on, or adjacent to, the Tongass National Forest.

		Hairy Woodpecker						Red-breasted Sapsucker					
		No. individuals			No. stops present			No. individuals			No. stops present		
Route	Yrs	ave	SE	cv	ave	SE	cv	Ave	SE	cv	ave	SE	cv
Juneau	8	0.13	0.13	1.00	0.13	0.13	1.00	4.75	1.00	0.21	4.25	0.98	0.23
Craig	4	1.50	0.96	0.64	1.50	0.96	0.64	10.00	1.78	0.18	8.25	0.75	0.09
Ketchikan	4	-	-	-	-	-	-	0.75	0.48	0.64	0.75	0.48	0.64
Haines	4	0.25	0.25	1.00	0.25	0.25	1.00	1.00	0.41	0.41	1.00	0.41	0.41
Sitka	4	2.50	0.65	0.26	1.75	0.48	0.27	4.75	0.85	0.18	4.75	0.85	0.18
Thorne Bay	3	2.67	1.67	0.63	2.67	1.67	0.63	5.67	1.86	0.33	5.33	1.76	0.33
Yakutat	4	0.25	0.25	1.00	0.25	0.25	1.00	-	-	-	-	-	-
Mitkof Island	9	0.78	0.36	0.47	0.78	0.36	0.47	18.67	3.54	0.19	15.22	2.73	0.18
Zimovia Strait	9	1.56	0.63	0.40	1.50	0.50	0.34	5.33	1.71	0.32	4.75	1.12	0.24
Harlequin Lake	4	1.00	0.41	0.41	1.00	0.41	0.41	2.50	1.19	0.48	2.25	0.95	0.42
Hoonah	4	3.50	1.50	0.43	2.75	1.11	0.40	24.25	6.46	0.27	18.25	4.48	0.25
Skagway	4	-	-	-	-	-	-	0.75	0.48	0.64	0.75	0.48	0.64
Zarembo	4	6.00	2.16	0.36	4.25	1.65	0.39	24.25	7.16	0.30	17.50	4.73	0.27
Chichagof Island	2	1.50	0.50	0.33	1.50	0.50	0.33	30.00	11.00	0.37	22.50	6.50	0.29
Hyder	2	-	-	-	-	-	-	1.50	1.50	1.00	1.50	1.50	1.00

		Brown Creeper						Golden-crowned Kinglet					
		No. individuals			No. stops present			No. individuals			No. stops present		
Route	Yrs	Ave	SE	cv	ave	SE	cv	Ave	SE	cv	ave	SE	cv
Juneau	8	-	-	-	-	-	-	7.13	2.95	0.41	5.63	2.36	0.42
Craig	4	-	-	-	-	-	-	3.25	0.63	0.19	2.50	0.50	0.20
Ketchikan	4	-	-	-	-	-	-	3.25	0.63	0.19	3.00	0.71	0.24
Haines	4	0.25	0.25	1.00	0.25	0.25	1.00	6.00	1.68	0.28	5.25	1.60	0.30
Sitka	4	0.25	0.25	1.00	0.25	0.25	1.00	5.00	1.83	0.37	4.00	1.29	0.32
Thorne Bay	3	0.33	0.33	1.00	0.33	0.33	1.00	8.67	4.06	0.47	7.33	3.53	0.48
Yakutat	4	1.25	0.75	0.60	1.25	0.75	0.60	22.00	6.54	0.30	17.00	4.20	0.25
Mitkof Island	9	2.11	0.72	0.34	2.00	0.67	0.33	8.56	1.61	0.19	6.56	1.00	0.15
Zimovia Strait	9	-	-	-	-	-	-	14.33	4.72	0.33	8.50	2.71	0.32
Harlequin Lake	4	1.75	0.85	0.49	1.75	0.85	0.49	17.25	2.50	0.14	14.75	2.50	0.17
Hoonah	4	3.25	1.25	0.38	2.00	0.71	0.35	9.00	3.49	0.39	6.00	1.96	0.33
Skagway	4	-	-	-	-	-	-	2.75	1.25	0.45	2.50	1.04	0.42
Zarembo	4	-	-	-	-	-	-	9.00	6.36	0.71	4.75	2.46	0.52
Chichagof Island	2	-	-	-	-	-	-	7.00	6.00	0.86	4.00	3.00	0.75
Hyder	2	2.00	2.00	1.00	1.00	1.00	1.00	10.00	1.00	0.10	6.50	2.50	0.38

ADMINISTRATION

Brad Andres, U.S. Fish and Wildlife Service

Few nominations for Chair of BPIF were sent to Paul Cotter and those that were sent indicated that I should remain Chair of BPIF for the next two years. I agreed to retain this responsibility for the next two years. As for committees, my suggestion of maintaining current chairs was not met with much opposition massive. Below are listed the current chairs with a brief outline of their duties over the next two years. I continue to make, albeit slow, headway on the Alaska Landbird Conservation Plan

Boreal Partners in Flight Working Group Chair - Brad Andres

- distribute regional, national, and international materials in a timely manner (should be easier after the homepage is functional [4/98])
- represent BPIF at meetings of the Western Working Group
- draft Alaska Landbird Conservation Plan
- produce BPIF annual report, February - early March
- organize and facilitate annual meeting
- maintain BPIF mailing list

Biogeographic Region Chairs

- summarize meeting topics, action items, and accomplishments for annual report
- contribute sections for Conservation Plan and serve as reviewers for completed plan
- ensure annual action items identified for each region are completed

Southeastern - Ellen Campbell
Southcoastal - Colleen Handel
Central - John Wright
Northern - Dave Yokel
Western/Southwestern - Brian McCaffery

Monitoring/Research Committee Chairs

- summarize meeting topics, action items, and accomplishments for annual report
- ensure annual action items identified for each monitoring/research area are completed
- distribute materials on new field techniques, data forms, or data analysis

Breeding Bird Survey - Brad Andres
Off-road point counts - Colleen Handel
Mist-netting/banding - Anna-Marie Barber

Information and Education Chair - Heather Johnson

- summarize meeting topics, action items, and accomplishments for annual report
- coordinate the North American Migration Count and other IMBD activities
- identify new educational projects that need to be developed