
Key Perceptions Held By Wildlife Managers and...
KEY PERCEPTIONS HELD BY WILDLIFE MANAGERS AND
WILDLIFE REHABILITATORS IN NEW YORK:
An Assessment of Communication Co-orientation
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Job Duration:  

Rehabilitation in New York State.  
Regardign licensed Wildlife Rehabilitators and  
Characterize the perceptions of BOW Personnel  

Objective:  
Characterize the perceptions of Licensed Wildlife Rehabilitators in New York State.  

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Characterize the perceptions of Licensed Wildlife Rehabilitators in New York State.  

Objective:  
Propensity to Support Management.  
Wildlife Resource managers in New York and their  
Participation parameters of nonconsumptive  
Needs.  

Study Number and Title: I - Identification of Wildlife Management Action  

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Rehabilitation Association.

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METHODS

- Key Wildlife Management Issues
- Characterize communication between Bureau of Wildlife (BOW) personal and wildlife managers
- Characterize the attitudes and values division of Fish and Wildlife personnel hold
- Characterize perceptions of rehabilitation among wildlife managers
- Characterize perceptions of rehabilitation about DEC and DEC
- Characterize perceptions of rehabilitation about Fish and Wildlife personnel

OBJECTIVES

- To facilitate DEC efforts to create a relationship with licensed Wildlife Rehabilitators
- To facilitate DEC efforts that fosters the provision of wildlife benefits
- To address specific needs held by agency personnel and rehabilitation workers
- To address specific needs held by agency personnel and rehabilitation workers
- To address specific needs held by agency personnel and rehabilitation workers

EXECUTIVE SUMMARY

- REVIEW
- METHODS
- RESULTS
- DISCUSSION
- CONCLUSIONS
- ADVISORY BOARD

CONCLUSIONS

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- [Names of advisory board members]

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Agency Image: Perceptions of Rehabilitators

The majority of BOW staff believed that Rehabilitators' attendance of staff workshops taught them better to interact with Rehabilitators.

About 46% of BOW staff believed that Rehabilitators did not contribute to Wildlife conservation.

Fewer than half of BOW staff believed that DEC personnel in their local area were interested in enhancing communication or cooperation with Rehabilitators.

About 44% of BOW staff believed that DEC would consider input from Rehabilitators as legitimate decisions.

DEC personnel: Most Rehabilitators described their interactions with Rehabilitators as 'I made them say something I wanted to hear.'

However, 44% were not sure if DEC would consider input from Rehabilitators as legitimate decisions.

Also, a DEC process that promotes professional development was interested in developing a fair Rehabilitator Trainingationale, by enhancing communication with Rehabilitators, but the majority of Rehabilitators believed that DEC personnel did not contribute to Wildlife conservation.

The image of Rehabilitators as harming communication or cooperation with Rehabilitators was expressed more frequently in Rehabilitator workshops than in BOW staff tape recordings.

A majority of DEC personnel believed Rehabilitators were always or nearly always as defined by the Environmental Conservation Law.

Fifty-nine percent of BOW staff (and 78% of division staff) supported the image of Rehabilitators as described by the Environmental Conservation Law.

BOW Perceptions of Rehabilitators and Rehabilitation

Information or assistance (66%).

The majority of BOW personnel had delivered an animal to a Rehabilitator for information or assistance (66%) and had referred a number of their professional duties with Rehabilitators as part of their job duties within DEC. About 80% of BOW personnel had done their professional duties within DEC and 78% (n=299) and 87% (n=309), respectively.

Interaction between Agency Personnel and Rehabilitators

Bureau of Wildlife (BOW) personnel

Evidence II. Results focus on interactions between Rehabilitators and DEC personnel. Results are reported in sections that parallel the objectives of study.

Surveys were 71% (n=299) and 87% (n=309), respectively.

RESULTS

DEC personnel: Most Rehabilitators described their interactions with Rehabilitators as 'I made them say something I wanted to hear.'

However, 44% were not sure if DEC would consider input from Rehabilitators as legitimate decisions.

Also, a DEC process that promotes professional development was interested in developing a fair Rehabilitator Trainingationale, by enhancing communication with Rehabilitators, but the majority of Rehabilitators believed that DEC personnel did not contribute to Wildlife conservation.
Ecological Systems: Most BOM staff believed that it is appropriate to depend more on conservation and management for natural systems, which wildlife management programs should be concerned with. Most BOM staff believed that the state's animal welfare issues are important.

Wildlife use and management: Nearly all BOM staff believed that activities, including hunting, trapping, and controlling wildlife populations were appropriate. Wildlife use and management: Nearly all BOM staff believed that OKDL's use and management were appropriate.

BOM Personnel:

Rehabilitators: There was widespread agreement that rehabilitators showed strong interest in rehabilitation.

Wildlife population manipulation: Wildlife rehabilitators were more likely to support hunting, trapping, and nuisance problems. More of the smaller subgroups (about 20% of all rehabilitators) were opposed to limiting wildlife and hunting, and more of a substantial number were opposed to heightening wildlife and hunting. However, the majority in this group were personally opposed to hunting, whereas rehabilitators were more likely to use wildlife for food or educational displays. Generally, rehabilitators disagreed on human control of wildlife, and many believed it was appropriate to use wildlife for educational purposes. Wildlife rehabilitators could be divided into 2 groups, based on their values.

Wildlife Use and Management: Cluster analysis suggested that rehabilitators who agreed with the statement "most DFC personnel believe rehabilitators are opposed to management of wildlife." wanted closer cooperation with rehabilitators, while rehabilitators who disagreed with the statement were more interested in enhancing communication with rehabilitators in their area. Only 32% believed DFC rehabilitators in their area were interested in enhancing communication with DFC rehabilitators. Fewer than half of rehabilitators believed that DFC rehabilitators were interested in enhancing communication with DFC rehabilitators. A large majority of rehabilitators believed that most DFC personnel believed corrective action was needed for the rehabilitation of wildlife.
diverse wildlife management program.

Wildlife managers are they attempt to develop support and funding for a
Management an awareness of this distinction could be at great value to
Wildlife use and management distinguish BOW staff from Rehabilitators.

The strength and uniformity of their attitudes on issues related to

Attitudes and Values

Discussion and Implications

Welfare and conservation of ecosystems.
Perceptions of the beliefs and values held by BOW staff on animal
The strong use orientation of BOW staff, but they held accurate
Rehabilitators in the smaller attitudeal subgroup also underestimated

For attitudes related to wildlife use.
The larger attitudeal subgroup of Rehabilitators held inaccurate
perceptions of BOW staff for all 3 factors. Misperception was largest

Importance Rehabilitators placed on conservation of ecosystems. Rehabilitators on issues related to animal pain, but underestimated the
subgroup. BOW personnel held relatively accurate perceptions of

Subgroup of Rehabilitators’ views were accurate for the main
BOW perceptions of Rehabilitators’ views were accurate for the main

Accuracy:

Believed BOW staff would hold similar views on all 3 issue areas.
Contracted members of the smaller attitudeal subgroup of Rehabilitators
For all 3 factors within the wildlife use and management scale. In

"Typical BOW staff member would hold views different than other column members of Rehabilitators that a
Rehabilitators in the larger attitudeal subgroup believed that a

Congruency:

Attitudes on issues related to conservation of ecological systems.
BOW and the smaller attitudeal subgroup of Rehabilitators did not
and suffering and negative human impacts on the environment. In fact,

Less differences existed for issues related to animal pain

Group differences were greatest for issues related to wildlife use and
All 3 issue areas within the wildlife use and management scale. Between

BOW personnel and Rehabilitators had different beliefs and values in

Consensus:
The most concerning aspect of agency image among this public was

Interagency Communication

Society.

Wildlife management and hunting are appropriate and beneficial to
about environmental conservation, and a substantial number believe
the data also suggests that most rehabilitators are also deeply concerned
management, as well as to some communities of wildlife utilization. However,
are personally opposed to some communities of wildlife utilization.
Those data suggest that the majority of rehabilitators in New York State

Rehabilitators.

Their views on the wildlife population control, and expect rehabilitation goals
than other rehabilitators to be more approve of hunting, trapping, and
rehabilitators. We do know that members of this subgroup are more likely
members of this subgroup, explaining the positive perceptions.
Our interesting in cooperation and communication with rehabilitators, and was
rehabilitators, held a positive image of rehabilitators to believe DCC was supportive of
the smaller, use-oriented subgroup of rehabilitators was more likely

Rehabilitators.

Supergroup of Rehabilitators.

representation of the wildlife-use orientation held by the smaller
rehabilitators toward DCC personal and consistent messages about DCC policy to individuals.
that effective communication links are established, and that all DCC
the rehabilitator program. Strategic planning seems warranted to ensure
interagency rehabilitators. Poor communication may explain some of the

Rehabilitators.

In spite of the communication programs that may now exist, DCC

Rehabilitators.

Personal relationships between wildlife managers and
Rehabilitators in this attitudinal subgroup could provide valuable
additional characterization of DCC interactions with
wildlife population control, and expect rehabilitation goals
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Rehabilitators.

Insights for improving overall attitudinal relationships between wildlife managers and
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Commitment to environmental conservation.

Wildlife use and management, animal rights, and welfare, and personal
polices should be utilized to characterize comprehensive attitudinal toward
similar to those of rehabilitators. Ogden's (1968) studies of other
program support, hunting, and communication among wildlife with views
many publics across New York State hold strong concerns about morals and
other publics. There is evidence to suggest that, like rehabilitators,
the types of challenges that may arise during DCC interactions with

groups make an increased commitment to ongoing communication.

These data provide a foundation for better understanding between wildlife managers and rehabilitators in New York. The value of these agreements or collaborations in other areas.

agreements suggest opportunities for a productive alliance between wildlife managers should be conducted within societal standards of human use.

Vail, where the beliefs that human interactions with and wildlife managers do hold in common some fundamental beliefs, and distinct, miscommunication, and division. Nevertheless, rehabilitators' service roles. These differences could lead to further tension. Wildlife, or may simply perceive themselves to occupy different public views on the appropriate relationship between people and wildlife. And the people of New York State, most were drawn to careers in wildlife management by deep interests in and concerns about wildlife.

Rehabilitators share a deep concern about the fate of distressed wildlife. Their commitment to their dual roles of service to the appropriate, important, and beneficial to wildlife and people. They are worried that caring for distressed wildlife is inappropriate.
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Approximately 13,000 animal distress incidents (Stemer and Brown 1992). By 1990, more than 400 licensed participants handled individuals holding a license quadrupled between 1980 and 1990 (Stemer and Brown 1992). The number of rehabilitators established a rehabilitation license requirement in 1980. The state of New York State, rehabilitators are licensed and regulated by DEC. The state is the eventual return of each animal to the wild (Pokors 1992a:3). In New York State, rehabilitators are allowed to receive, possess, and aid injured, orphaned, or distressed wildlife. The primary goal of wildlife rehabilitation is the eventual return of each animal to the wild

REHABILITATORS AND REHABILITATION

Licensed wildlife rehabilitators (hereafter referred to as rehabilitators) are a variety of professionals. This report focuses on a study of communication between the DEC Bureau of Wildlife and a relatively new public: New York’s deer management programs. DEC has expressed an ongoing interest in improving communication with the publics who hold a stake in the outcome of wildlife management. State wildlife managers recognize the importance of effective, socially acceptable, as well as ecologically sound, communication. Effective communication is the basis for development of management programs that are mutually understandable and the publics that are engaged. Wildlife managers need to make decisions. Mutual understanding is necessary when making decisions. Wildlife management is an important part of the total information base for wildlife, relative to wildlife, and affect New York State's wildlife and a wide range of publics. Understanding how those publics interact with the New York State Department of Environmental Conservation (DEC) serves

INTRODUCTION
Generally, toward that end, HBOV developed and implemented a multi-phase program to improve communication between DEC and the Rehabilitators at Cornell University to conduct a study of wildlife rehabilitation in New York as a basis for improving communication. In 1990, DEC contracted with the Human Dimensions Research Unit (HDNU) to conduct a study of wildlife rehabilitation in New York.

**PURPOSE AND OBJECTIVES**

Effective intergroup communication, an impediment to effective program administration and the development of New York. The absence of information in these areas was identified by DEC as clarifying the context for communication between managers and Rehabilitators in attitudes and perceptions held by Rehabilitators and DEC personnel, or to conduct studies in New York to provide accurate, baseline information on key recent emergence of licensed Rehabilitator activity, no studies had been management and perceptions of DEC-Rehabilitator interactions. Given the information on Rehabilitators, attitudes toward wildlife and wildlife Rehabilitators and their activities. Among the needs identified was baseline rehabilitative responsibility led to an agency need for additional information on increased public participation in rehabilitation, and increased treated, cause of distress, and final disposition of animals treated). Information associated with their animal care activities (e.g., species specific Rehabilitators have been required to report specific

Environmental Conservation Officers, animal's directly to a licensed Rehabilitator rather than only to a DEC.

In New York, and allow people who discover distressed wildlife to deliver such Winter specific authority to issue licenses for wildlife rehabilitation law (CFL) reflected this activity growth. In 1989, the CCL was amended to amendments made to Section 11-0515 of New York’s Environmental Conservation
of two persons to one another and to some external object” (Chaffee 1973:465).

Communication coordination is defined as “the simultaneous orientation

The Communication Coordination Model

CONCEPTUAL FRAMEWORK

management issues.

1. Characterize the communication coordination between Bureau of Wildlife
   personnel and Rehabilitators, with respect to key Wildlife
   management issues.

2. Characterize perceptions Rehabilitators hold about DE and DEC.
   about Rehabilitators and Rehabilitators.

3. Characterize perceptions Rehabilitators hold about Fish and Wildlife
   Personnel and Rehabilitators.

4. Characterize the attitudes and values division of Fish and Wildlife
   personnel.

5. Characterize the attitudes and values division of Wildlife management
   personnel on key Wildlife management issues.

Study phase II:

Rehabilitator Communication. We established 5 objectives as guidelines for
purpose of Study phase II was to provide information needed for effective DE-
attitudes, and values held by Wildlife managers and Rehabilitators. The
attitudes, and values held by Wildlife managers and Rehabilitators, the
from the second phase of our study, a comparative analysis of key perceptions,
film Rehabilitators interact directly. In this manuscript we report results
characteristics, experiences, attitudes, and perceptions of the people with
1992; Sherman et al. 1992). The third phase of our study identified key
attitudes and perceptions on key wildlife management issues (Sherman and Brown
Rehabilitators, their education and animal care activities, and their
assistance. The first phase of our research produced baseline information on
personnel, and members of the public who contact Rehabilitators for
study that included surveys of 3 key groups: Rehabilitators, agency
CONGRUENCY: The extent to which one person thinks the other's opinions resemble his own (Maccoby 1973). (E.g., do DC persons hold accurate perceptions of the second person's evaluation that resembles the second person's true evaluation, the other person's evaluation that resembles the same idea (Maccoby 1973).)

AGREEMENT: The extent to which the first person's perception of the second person is the same as the second person's perception of the first person.

Accuracy: The degree to which values on the wild-like use (e.g., do DC persons and DEC persons hold the same values on the wild-like use?)

Definitions of constructs: Agreement, accuracy, and congruency (Figure 1). Definitions of that generates 5 measures of cognition, allowing for analysis of 3 conceptual models and related hypotheses. (Maccoby and Chartier 1973) developed a coordination measurement model of agreements between 2 people or 2 groups. Sets of perceptions that theoretically one can identify communication links and sets of perceptions, theoretically 2 people or 2 groups. Thus, by assessing these 2 basic values of others, and one's own beliefs and values, and perceptions of the beliefs and awareness of one's own beliefs and values, and perceptions of the beliefs and estimates that behavioral is based both on these 2 sets of perceptions 

1. The coordination approach focuses on inter-personal communication--it assumes that communication is fundamentally an interpersonal exchange between 2 people (or groups of people). Each person in a pair (or pair of groups) has a set of perceptions (i.e., their own perceptions) of what the other person (or group) thinks. The coordination model

2. Research established through research by Newcomb (1953), Laing et al. (1969), and others, indicated that the central concept underlying a model for communication

By DC person-minded (7), Chartier and Maccoby (1969), and others.
Figure 1. Application of the co-ordination measurement model (Mcleod and Grant, 1973) to communication between wildlife managers and rehabilitators.
In 4 key issue areas, perceived one another, and understood their true similarities and differences.  
Rehabilitation and agency personnel agreed with each other, accurately co-relation model in this study to estimate the degree to which communication related to natural resource management issues. We used the utility of the co-relation concept for describing and explaining intergroup HDRU studies (Shanks 1992, Gigué, et al., 1992) have demonstrated the past issue (Eisele 1972, O'Keefe 1979, Clarke 1973, Murray and Stenn 1973). Past employed to describe interpersonal communication for a variety of groups and valuable insights about group interaction. Variety of the model have been when used within these known limitations, this model can provide communication. 

time mail or telephone surveys (can only provide static approximations of true measurement tools (e.g., the co-relation model), and techniques (e.g., one of our perceptions of others. Thus, while communication is a dynamic process, our static picture of communication, based on past interactions between the groups also be noted that the model is operationalized in a manner that provides a general depiction of communication between individuals may not be detected. It should general depiction of communication between groups, but when this is done, dyad--ideal or individual people. The model can be used to provide a (Chaffee 1973). The model was designed to describe communication between a dyad--ideal 2 individuals. The model can be used to provide a researcher must remain aware when interpreting study results. Model and the co-relation measurement model has limitations, of which the
Although a member of a humane organization interested in preventing use of the suffering of captured animals, I am concerned with animal welfare. You are concerned about animal suffering, the agriculturalists, biologists, researchers, or trapper can suffers that a person 1975? Kever 1983) On the other hand, Schmidt (1990:459) suggests that a person the right to life, freedom of movement, and a pain-free existence. Singer's morality wrong because they derive animals of fundamental entitlements (e.g., production, biomedical research, zoological collection) of animals are deemed to within an animal rights perspective, human uses (e.g., food) reduction of pain and suffering experienced by domestic and wild animals the rights (Singer 1975). In contrast, the animal welfare movement focuses on the rights (Singer 1975). In contrast, the animal rights movement is that all animals (human and nonhuman) hold equal but separate movements (Schmidl 1992; B: 1990). The fundamental assumption of animal rights and animal welfare have been characterized as overlapping, Animal Rights and Animal Welfare:

Following pages we directly highlight the recognized concerns in each area.

humanistic, utilitarian, and ecological attitudes, orientations). In the values (i.e., what Kellest and Barry [1980] described as moralistic, to animal rights, animal welfare, animal use, and the centrality of ecologists]. We suggest that the attitudes most critical to that relationships are related ground believe people should relate to wildlife and the natural environment, rehabilitation, and wildlife managers huge on how the members within each underlying our research was an assumption that relations between ecological, issues related to wildlife perspectives of agency, persons, and rehabilitation on more, human, use, and
May continue to develop into an unbridgeable chasm with the ultimate loser
perpetuation of the wildlife resource. Without changes in attitudes this rift
developed into a rift separating 2 factions that share the same goal: the
rights and welfare concerns about hunting and trapping, Schmidt and Bruner
agreed with a pro-hunting/trapping mandate and publics with strong animal
communication barriers have become very apparent in debates between management
Decker and Brown 1987; Schmidt and Bruner 1981; Schmidt 1990.

Disparate values in these issue areas is exceedingly difficult (Todd 1980).
Welfare, and wildlife management is that communication among groups holding
a common theme running through the debate about animal rights, animal
management (Decker 1987; Marion 1989; Steinhart 1990; Tudge 1992;)

Contributions of wildlife rehabilitation to wildlife conservation and
these broadbase concerns are frequently expressed in debate over the
Radical change in wildlife management practices and agencies (Sheffer 1974,
been suggested that public concern about humane animal treatment could force
wildlife management (Allen 1985, Bertram 1982; Wickeford 1987). It also has
characterized the animal rights movement as a serious threat to professional
Decker and Brown 1987; Schmidt 1989a; 1990; Todd 1980;
concern about animal rights or animal welfare has been a source of ongoing
The degree to which wildlife management programs should reflect public
nothing to do with giving animals equal rights.
States has animal welfare concerns to some degree. This concern has

sustaining animal populations, species, or communities:

the welfare of individual animals, the other placing primary value on
the development of different personal ethics: one placing primary value on
at both levels. However, the relative strength of such concerns may result in
precipice concern for individual animals. Indeed, people often hold concerns
for populations, species, or communities of wildlife does not

Centrality of Ecological Values:

at this time (Kennedy 1985).

expectations in conflict with the primary focus of wildlife management agencies
disiriting values on human use of wildlife vary express interests and
toward wildlife (Kellert and Berry 1980). However, publics who hold
economic view of wildlife is the most pervasive orientation of Americans
acceptable and appropriate, some evidence suggests that a utilitarian,
controversial, sustaintable human utilization of these resources is viewed as
agencies define fish and wildlife as renewable natural resources.

et al., 1991). The enabling legislation creating most wildlife management
appropriateness of various uses of wildlife (Kennedy 1985). DuBois, 1990, Decker
communication problems that emerge between groups with different values on the
public debate about hunting and trapping exemplifiesroller the conflicts and
of people most concerned about the future of wildlife against each other."

Todd (1980:57) "what the hunting/trapping controversy has pitied the 2 groups
being the wildlife resource itself. "It is indeed lamentable", noted Arent
The biologists and the general public, biologists exhibit a
No significant differences were found in the humanistic scale between
and Berry (1980).

and the general public, as represented by national survey data collected by Keelert
attitudes among Bureau of Land Management biologists to those found in the
conflict is provided in a study by Peyton and Langenau (1985) that compared
management have continued. One illustration of this underlying values
conflicting values on animal use persist, and conflicts over animal use and
welfare (Midgley 1983). In the absence of any consensus philosophy,
environmental ethics should be based on animal rights (Regan 1983) or animal
suggested. In contrast to a land-based ethic, others have suggested that
unrealized and an array of alternative environmental ethics have been
community as such (Leopold 1949:204). However, Leopold’s land ethic remains
of it. It implies respect for his fellow-members, and also respect for the
homo sapiens form confederator of the land-community to plan member and citizen
animals and ecological systems. Leopold’s land ethic changes the role of
provides a uniting philosophy which incorporates respect for individual
populations (Meine 1988). Callcott (1989) suggests that Leopold’s land ethic
between concern about individual animals and concern about wildlife
of his death also Leopold was attempting to reconcile the apparent conflict
wildlife management profession has struggled with this dilemma. At the time
embraces both scientific and humane considerations. Since its inception, the
common philosophy: an ethic of the land and its living components that
Keelert (1982:139) suggests that cooperation between wildlife managers
K 1985:32)

the treatment of individual animals is clearly not one of them. (Lottin
while the proponents of these two approaches agree on many things.
Methods

Agency Relations with Rehabilitators

A supplemental agency image scale with items to assess DEC personnel’s perceptions of study we developed a scale to assess Rehabilitators’ image of DEC and DEC’s communication between DEC and a specific audience (Decker, 1985). For this, HUDR has utilized an agency image scale in several studies related to their knowledge that a given public will support agency programs (Decker, 1989). The methodology can provide a useful index to integrate group communication and the holds related to management function, personnel, and communications of an agency image as a communication index. (Peyer and Langanu, 1985:119)
were asked to describe their personal background (i.e., their past previous survey of wildlife rehabilitators). In addition, division personnel The survey instrument contained the same attitudinal items used in the frame of reference within which to interpret BOW responses.

audience for this survey; other division staff were surveyed to provide a
BOW [n=31], and division administrators [n=18]. BOW staff were the primary
Bureau of Fisheries [n=14], Bureau of Environmental Protection
Division of Fish and Wildlife (i.e., staff in the Bureau of Wildlife [BOW])

In September 1991, we conducted a mail survey of all personnel in the DEC
Mail Survey of Agency Personnel

Rehabilitation Association (NWA)

State Wildlife Rehabilitation Council (NWAC), and the National Wildlife
and scales were developed and finalized with input from DEC, the New York
hunting, fur trapping, and limiting wildlife populations. Attitudinal items
were included to measure attitudes toward wildlife management, recreational
of wildlife-use issues, both rehabilitationists and managers, 9 attitudinal items
wildlife conservation, and 4 items on animal welfare). Given the importance
wildlife, and conservation issues (i.e., 4 items on wildlife-use issues, 5 items on
perceptions that rehabilitationists held related to wildlife use, management.
The instrument included a 23-item scale developed to characterize the
toward DEC-rehabilitator interactions (see Stemmer and Brown 1992).

activities; motivations for involvement in rehabilitation; and attitudes
densed rehabilitation experience); wildlife care activities; educational
characteristics (i.e., age, sex, education, training, income, and years of
facilities (e.g., staff size, location, operating budget); background
The survey instrument was developed to characterize rehabilitationists'
Use and Management scale. Thus, we report frequency results for individual persons' responses on the individual items that make up the Wildlife Use and Management Scale (WUMS). Some insights can be gained by comparing Rehabilitators and BOW.

Measures of Communication Correlation:

In Stewart et al. (1992), Sokal and Michener (1958). A detailed account of this analysis is provided. A agglomerative method of cluster analysis (1/e) average linkage clustering 9 items on wildlife use were used as the basis for a hierarchical analysis. Responses to personable could be sorted into meaningful attitudinal subgroups. We also conducted analysis to determine if rehabilitators or BOW (SPSS 1986).

15-item scale (Cronbach's alpha score of 0.898) was subjected to factor analysis with varimax rotation. Using the principal component extraction, the item-internal consistency was determined. Items were removed until test-retest reliability and reliability were no longer decreased. Strongly disagree, disagree, strongly agree, agree, on presented in a 5-point Likert-type format (1 = strongly disagree, no 0 = strongly agree). All 23 items in the wildlife rehabilitation and use scale were compared. Chi-square and Student's t statistics were used for group comparisons. Questionnaires from both surveys were coded and analyzed by.

Analytical wildlife management and wildlife rehabilitation communities. Wildlife management and wildlife rehabilitation, and their perception of existing relations between the career in natural resource management, their views on wildlife interaction with wildlife rehabilitators, their motivations for choosing a
the minority subgroup was 62 percent male. differrent (Sivewer et al., 1992b), the majority subgroup was 80 percent female.

rehabilitation activity, but the gender composition within each group was subgroups was similar in age, income, education, and years of licenced and 29 percent of respondents, respectively. The membership of these attitude toward subgroups of rehabilitation, containing approximately 71 percent

than I meantingful group within BOM. However, our analysis generated a Cluster analysis using items on wildlife use failed to generate more

Respondent Subgroups

nonresponse bias. nonresponse telephone follow-up studies were not conducted to estimate low (Dolson and MacMillan 1991, Hammit and McDonald 1992). Therefore, the time) and that potential bias associated with nonresponse was acceptable.

accuracy level of our data was acceptably high (i.e., accuracy of 73% 95% of response rates, respectively). Given these response rates, we assumed that the division of fish and wildlife surveys received 71% (n=299) and 87% (n=309).

After deleting uninterpretable questionnaires, the rehabilitating and

RESULTS

accuracy (I and II) and congruency (I and II).

items in each factor of the scale to provide aggregate estimates of agreement, wildlife management or use issue. Therefore, we used the grand mean of all

time. However, individual items in the wildlife use and management scale are
of BOW employees cited at least 1 contact with a Rehabilitation; about 20% of course of their employment with DEC. Between May 1990 and May 1991, about 80% BOW personnel had at some time interacted with Rehabilitators during the study conducted between BOW personnel and Rehabilitators was common. Most (88%) interaction between DEC personnel and Rehabilitators has been kept to a minimum.

Comparisons between Division personnel and other Division personnel, but comparisons between Division personnel and Rehabilitators have aggregated. Comparisons are made between BOW personnel and other Division personnel outside BO (i.e., OF, DE, and Division Administration) are reported in our primary audience for study phase II). Data provided by Division personnel (our section focuses on comparisons between Rehabilitators and BOW personnel) of communication correlation have been appended to this report. The results of volume. Supporting tables related to factor analysis and analysis of variance. However, several steps were taken to reduce data redundancy and some redundancy exists between this and previous study reports (Stemer and Bronn 1992; Stemer et al., 1992). Due to the comprehensive nature of this study, phase II, we begin with information on past contact between agency Rehabilitators, and Rehabilitators, as perceived by BOW personnel and personnel and Rehabilitators. In subsections 2 and 3, we discuss DEC’s personal relationship with Rehabilitators. Results are reported in 5 subsections that parallel the objectives of Section Organization.
a recreational activity that provides direct benefits to its participants, but

Photography. Comments suggested that some BOW staff define rehabilitation as
Rehabilitation is a use of wildlife, much like hunting, trapping, or wildlife
There appeared to be a widespread belief among BOW staff that

wildlife, or animals injured through nonhuman causes (Table 2).

wildlife, fewer BOW staff supported rehabilitation with common species, exotic
Rehabilitation was always or nearly always appropriate with endangered
support for the activity. While a majority of BOW personnel believed
many BOW managers held reservations about rehabilitation and questioned their
Division staff] were opposed to rehabilitation as currently defined. However,
the Environmental Conservation Law. Only 21% of BOW staff (11% of other
and 78% of Division staff) supported wildlife rehabilitation as defined by
rehabilitation as a nonregulation activity. Fifty-five percent of BOW staff
The majority of BOW staff appeared to support the existence of

BOW perceptions of rehabilitators and rehabilitation

Prior to receiving our questionnaire (Table 1).

Division personnel had referred someone to a rehabilitator for assistance
Division personnel had referred someone to a rehabilitator during that period. Even so, nearly half (47%) of other
rehabilitators in the past 12 months, and only 11% reported 3 or more contacts
with rehabilitators at DC. Over 66% of other Division staff had not interacted with a
majority (53%) had never communicated with a rehabilitator as part of their
BOF, DEP, and Division Administration personnel) was less common. The
interaction between rehabilitators and other Division personnel (i.e.,
someone to a rehabilitator for information or assistance (Table 1).

BOW personnel cited a dozen or more communication exchanges. The majority of
BOW personnel cited a dozen or more communication exchanges. The majority of
<table>
<thead>
<tr>
<th>Interaction</th>
<th>Description of Division of Fish and Wildlife Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>74.4</td>
<td>Have referred the public to a rehabilitator.</td>
</tr>
<tr>
<td>26.5</td>
<td>Have delivered an animal to a rehabilitator.</td>
</tr>
<tr>
<td>19.8</td>
<td>Have contacted rehabilitators for information.</td>
</tr>
<tr>
<td>24.3</td>
<td>Have been contacted by a rehabilitator for information.</td>
</tr>
<tr>
<td></td>
<td>Interaction of Personals (n=156)</td>
</tr>
<tr>
<td></td>
<td>Personal Division of Fish and Wildlife</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>All</td>
</tr>
</tbody>
</table>

Course of their employment with DEC.
Personals who had interacted with a Wildlife Rehabilitator in the Division of Fish and Wildlife of Bureau of Wildlife.

Table 1. Percent of Bureau of Wildlife and Division of Fish and Wildlife.
<table>
<thead>
<tr>
<th>Species Status:</th>
<th>Endangered</th>
<th>Exotic</th>
<th>Common</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bureau of Wildlife (n=147)</td>
<td>2.6 2.6 9.9</td>
<td>2.5 4.7 6.9</td>
<td>3.4 3.4 2.7</td>
</tr>
<tr>
<td>Other Division Staff (n=60)</td>
<td>16.1 19.9 16.0</td>
<td>40.8 40.2 40.2</td>
<td>40.8 40.8 40.8</td>
</tr>
<tr>
<td>Bureau of Wildlife (n=147)</td>
<td>2.6 2.6 9.9</td>
<td>2.5 4.7 6.9</td>
<td>3.4 3.4 2.7</td>
</tr>
<tr>
<td>Other Division Staff (n=60)</td>
<td>16.1 19.9 16.0</td>
<td>40.8 40.2 40.2</td>
<td>40.8 40.8 40.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Never</th>
<th>Almost</th>
<th>Some</th>
<th>Nearly</th>
<th>Always</th>
<th>Never/Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distress Incident of an Animal Circumstances</td>
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<td></td>
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</tbody>
</table>

How often is Rehabilitation Appropriate?

Table 2: Response (%) of Bureau of Wildlife and Division of Fish and Wildlife Personnel regarding the Appropriateness of Wildlife Rehabilitation, given a particular species status (common, exotic, endangered) or source of injury (human or nonhuman causes).
communication goals on this topic (Table 3).

Communication or cooperation with rehabilitationists: I'm not sure of DC staff's belief that DC personnel in their local area were interested in enunciating about communication with rehabilitationists. Fewer than half of BOW staff BOW staff responses suggested a mixture of distrust and uncertainty.

It is currently practiced. trapping (and perhaps even bringing in and to professional) wildlife management as traditional techniques of wildlife population management (i.e., hunting and rehabilitation were teaching values that could result in the loss of majority of BOW staff thought other local DEC staff would agree that don't contribute to wildlife-related education (Table 3). Moreover, the statement, "rehabilitation don't contribute to wildlife conservation." Almost half of BOW staff thought their local colleagues would agree with explored 2 facets of agency image: personnel and communication (Table 3).

Agency personnel were also asked to describe their perceptions of perceptions of other DC personnel:

restoration, and thus compromise the agency's ability to fulfill its mission.

other agency activities (e.g., habitat acquisition, protection, and rehabilitation would reduce the availability of resources available to conduct perception among BOW staff that additional agency involvement in wildlife limited benefits to the larger society. Respondent comments also suggested a
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<table>
<thead>
<tr>
<th><strong>Disagree</strong></th>
<th><strong>Undecided</strong></th>
<th><strong>Agree</strong></th>
<th><strong>Strongly Agree/Disagree</strong></th>
</tr>
</thead>
</table>

*In my local area...*  
Most Dec Personnel

Agency colleagues viewed Wildlife & Fish and Wildlife staff toward questions asking how they believed their personal and towards questions asking how they believed their personnel.  
Response (% of Bureau of Wildlife and Division of Fish and Wildlife staff):
<table>
<thead>
<tr>
<th>12.6</th>
<th>49.0</th>
<th>38.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.7</td>
<td>25.7</td>
<td>64.6</td>
</tr>
</tbody>
</table>

Bureau of Wildlife

Use of hunting as a management tool. Rehabilitators teach values that threaten

<table>
<thead>
<tr>
<th>10.2</th>
<th>51.3</th>
<th>38.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.3</td>
<td>24.3</td>
<td>69.4</td>
</tr>
</tbody>
</table>

Bureau of Wildlife

Use of trapping as a management tool. Rehabilitators teach values that threaten

<table>
<thead>
<tr>
<th>17.1</th>
<th>50.9</th>
<th>32.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.3</td>
<td>27.3</td>
<td>57.4</td>
</tr>
</tbody>
</table>

Bureau of Wildlife

Professional wildlife management. Rehabilitators teach values that threaten

<table>
<thead>
<tr>
<th>28.9</th>
<th>52.8</th>
<th>18.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.5</td>
<td>34.7</td>
<td>36.8</td>
</tr>
</tbody>
</table>

Bureau of Wildlife

To wildlife management. Rehabilitators are opposed

<table>
<thead>
<tr>
<th>Disagree</th>
<th>Undecided</th>
<th>Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly</td>
<td></td>
<td></td>
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</tbody>
</table>

In my local area... Most de personal

Table 3. Cont.
Rehabilitators were not sure what DEC staff thought of them or their
work. Some saw them as contributors to Wildlife Conservation. However, some
rehabilitators, for example, 40% of rehabilitators believed that DEC staff
appeared to believe that DEC staff held positive perceptions of
personnel as neutral or supportive (Table 4), and a substantial minority
of rehabilitators described their interactions with DEC
personnel:

**Personal:**

Rehabilitators (χ² = 21.44, df = 4, p = 0.001).

Unnecessary was more prevalent in the majority of longitudinal subgroup of
and Brown 1992). The perception that DEC restricted rehabilitators
were not necessary due to handling rabbits species as an unimportant source of dissatisfaction (Stær
unnecessary. About 10% of rehabilitators described restrictions related
to handling rabbits as an important source of dissatisfaction (Stær)

Some rehabilitators believed that DEC restricted rehabilitators

5.

Rehabilitators as it made decisions about the rehabilitation program (Table
5).

We are not sure if, or disagreed that, DEC would consider input from
professional development (Table 5). However, the majority of rehabilitators
believed that the effect on rehabilitators in New York (Table 4). The majority of
management activities. The majority of rehabilitators believed that

Rehabilitators held a mix of positive and negative impressions of DEC

Management function:

Agency Image—Rehabilitators’ Perceptions of DEC and DEC Personnel
<table>
<thead>
<tr>
<th>Year</th>
<th>Frequency</th>
<th>In the Albany Office</th>
<th>My Interactions with DEC Personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>36.5%</td>
<td>57.5</td>
<td>36.5</td>
</tr>
<tr>
<td>2014</td>
<td>44.4%</td>
<td>45.8</td>
<td>44.4</td>
</tr>
<tr>
<td>2015</td>
<td>39.1%</td>
<td>53.6</td>
<td>39.1</td>
</tr>
<tr>
<td>2016</td>
<td>47.7%</td>
<td>31.0</td>
<td>47.7</td>
</tr>
<tr>
<td>2017</td>
<td>38.1%</td>
<td>48.1</td>
<td>38.1</td>
</tr>
<tr>
<td>2018</td>
<td>27.9%</td>
<td>68.3</td>
<td>27.9</td>
</tr>
</tbody>
</table>

Supportive Neutral Unsupportive

Perceived Result on Rehabilitators

Table 4. Percentages of Respondents' Wildlife Rehabilitation and DE.

Rehabilitators in New York.

Regarding the impacts selected DEC actions have on wildlife.
Table 5. Response (%) of New York State wildlife rehabilitators to items regarding the agency image of DEC (n=274-288).

<table>
<thead>
<tr>
<th>Item Description</th>
<th>AGREE</th>
<th>UNDECIDED</th>
<th>DISAGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MANAGEMENT FUNCTION:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEC personnel in the Albany office are concerned with developing a rehabilitator examination process that is fair.................</td>
<td>59.7</td>
<td>30.0</td>
<td>10.3</td>
</tr>
<tr>
<td>DEC personnel in my local area are only concerned about species of wildlife people hunt..................................................</td>
<td>33.7</td>
<td>22.0</td>
<td>44.3</td>
</tr>
<tr>
<td>DEC personnel in the Albany office are more concerned with hunting-related than with nonhunting-related wildlife issues.....</td>
<td>50.0</td>
<td>26.3</td>
<td>23.7</td>
</tr>
<tr>
<td>DEC personnel in the Albany office want to design licensing requirements for rehabilitators that promote professional development..................................................</td>
<td>58.5</td>
<td>31.1</td>
<td>10.4</td>
</tr>
<tr>
<td>DEC personnel in the Albany office are willing to consider input from rehabilitators in decisions related to rehabilitator licensing practices.................</td>
<td>39.2</td>
<td>43.5</td>
<td>17.3</td>
</tr>
<tr>
<td>DEC personnel in the Albany office will consider the results of this study as they make decisions that affect rehabilitators...</td>
<td>48.2</td>
<td>38.7</td>
<td>13.1</td>
</tr>
<tr>
<td>The DEC Albany office places unnecessary restrictions on rehabilitators.............</td>
<td>24.1</td>
<td>22.2</td>
<td>53.7</td>
</tr>
<tr>
<td>DEC personnel in my local area want to</td>
<td>31.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>with rehabilitation professionals</td>
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<td></td>
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<tr>
<td>establish a more cooperative relation-</td>
<td></td>
<td></td>
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<tr>
<td>ship</td>
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</tr>
</tbody>
</table>

| DEC personnel in my local area are | 33.3 |
| interested in establishing an effective communication network with rehabilitation professionals |      |

**COMMUNICATION BEHAVIOR:**

| DEC personnel do not believe rehabilitation professionals make any contribution to wildlife-related education | 24.3 |
|                                                                                                         |

| DEC personnel believe rehabilitation professionals make any contribution to wildlife-related education | 44.8 |
|                                                                                                         |

| DEC personnel do not believe rehabilitation professionals are a group of professionals | 28.1 |
|                                                                                                         |

| DEC personnel in my local area view rehabilitation professionals as a group of professionals | 34.2 |
|                                                                                                         |

**PERSONAL CHARACTERISTICS:**

<table>
<thead>
<tr>
<th>Item Description</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
</tr>
</thead>
</table>

Table 5. Cont.
Interested in developing better communications with rehabilitationists (\(x^2 = 13.79, 4 \text{ df}, p > 0.01\)),

subgroup were more likely than other rehabilitationists to believe DEC was
staff and wildlife-use oriented rehabilitationists. Members of this minority
perceptions of intergroup communication were most positive between DEC
rehabilitationists, or wanted closer cooperation with rehabilitationists (Table 5).

their local area were interested in enhancing communication with
communication. Only about 1 in 3 rehabilitationists believed DEC personnel in

The least positive component of agency image was intergroup

communication:

and supportive of wildlife management (\(x^2 = 12.96, 4 \text{ df}, p > 0.05\)).

DEC perceived rehabilitationists as "professional" (\(x^2 = 11.68, 4 \text{ df}, p > 0.05\)) members of the minority subgroup were also more likely to believe

species (\(x^2 = 36.05, 4 \text{ df}, p < 0.001\)) and non-game issues (\(x^2 = 30.72, 4 \text{ df}, p < 0.001\)). Members of the

supportive interactions with local wildlife personnel (\(x^2 = 20.02, 2 \text{ df}, p < 0.001\)). Members of the

supportive interactions with local wildlife personnel. The minority subgroup of use-

Relatively strong wildlife-use orientation. The minority subgroup of use-

more positive relationship between DEC staff and rehabilitationists with a

Differences in agency image held by rehabilitationist subgroups suggested a

personal belief rehabilitationists are opposed to management of wildlife.

rehabilitationists. For example, about 44% agreed with the statement "most DEC

believed that DEC staff held negative perceptions of rehabilitationists or

activities (Table 5). And, in addition to this uncertainty, many also
3 bureaus held similar beliefs on these issues. Users of wildlife should be concerned with such issues (Table 8). Staff in reflected concern about issues of animal pain and suffering, and that all most BOW staff believed that the state's wildlife management program very similar to those expressed by BOW staff. Bureau of Environmental Protection (BEP) staff expressed views on wildlife use activities related to trapping. Otherwise, Bureau of Fisheries (BOF) and BOW staff, BEP staff held more reservations about the appropriateness of wildlife use and management to be appropriate activities. In comparison to staff in other bureaus within the division of fish and wildlife also perceived BOW staff exhibited a strong and uniform orientation toward wildlife use. and controlling wildlife populations were appropriate activities (Table 7). Nearly all BOW staff believed that recreational hunting, fur trapping,

Beliefs and Values of DEC Personnel: Diversity (Table 6).

deal with the perceived need to conserve natural systems and species management of wildlife activities and programs. The ecological systems factor individual wild animals should be made an active concern in the conduct and suffering factor dealt with the extent to which pain and suffering of as hunting, trapping, and human use of wildlife for food or fur. The pain and ecological systems (factor 3). The wildlife use factor dealt with such topics factors wildlife use (factor 1), wildlife pain and suffering (factor 2), and factors explained 65% of the model variance (Appendix A). We labeled the these factors emerged from the wildlife use and management scale; these

Attitudes and Values on Key Issues
The people of New York are not doing enough to conserve the natural
large populations in a few species.
It is more important to manage for species diversity than to manage for
negative impacts on wildlife.
It is ethically for society to restrict human activities to minimize

FACTOR 3: VALUES RELATED TO HUMAN IMPACTS ON ECOLOGICAL SYSTEMS

FACTOR 2: VALUES RELATED TO ANIMAL PAIN AND SUFFERING

FACTOR 1: VALUES RELATED TO WILDLIFE USE AND MANAGEMENT

Table 6. The wildlife use and management scale.
<table>
<thead>
<tr>
<th>Item Description</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hunting is justified only when it is necessary to sustain human life.</td>
<td>96.6</td>
<td>96.9</td>
<td>46.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>An important step in conserving a species of wildlife is to protect it from all</td>
<td>1.4</td>
<td>1.9</td>
<td>16.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>forms of hunting.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trapping wild animals is morally wrong if it is done primarily for recreation.</td>
<td>4.0</td>
<td>6.9</td>
<td>37.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hunting wild animals is morally wrong if it is done primarily to obtain food.</td>
<td>5.0</td>
<td>4.9</td>
<td>14.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Killing wild animals to sell their fur is morally wrong.</td>
<td>1.3</td>
<td>13.5</td>
<td>74.2</td>
<td>0.0</td>
<td>84.0</td>
</tr>
<tr>
<td>Item Description</td>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Neutral</td>
<td>Disagree</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------------------------------</td>
<td>----------------</td>
<td>-------</td>
<td>---------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Hunting is morally wrong because it violates the right of an individual animal to exist.</td>
<td>2.0</td>
<td>3.1</td>
<td>31.1</td>
<td>96.6</td>
<td></td>
</tr>
<tr>
<td>It is wrong to regard wild animals as a renewable source of food.</td>
<td>1.4</td>
<td>1.2</td>
<td>22.6</td>
<td>95.7</td>
<td></td>
</tr>
<tr>
<td>Bureau of Wildlife, Division of Fish and Wildlife Wildlife Rehabilitators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People who participate in trapping do not feel compassion for wildlife.</td>
<td>2.7</td>
<td>2.8</td>
<td>3.1</td>
<td>94.5</td>
<td></td>
</tr>
<tr>
<td>Bureau of Wildlife, Division of Fish and Wildlife Wildlife Rehabilitators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The resources expended in New York to manage wildlife for hunting would be better spent on conservation of threatened and endangered wildlife.</td>
<td>1.4</td>
<td>3.4</td>
<td>17.9</td>
<td>85.2</td>
<td></td>
</tr>
<tr>
<td>Bureau of Wildlife, Division of Fish and Wildlife Wildlife Rehabilitators</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.5</td>
<td>62.2</td>
<td>16.7</td>
<td>16.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item Description</td>
<td>Strongly Disagree</td>
<td>Disagree</td>
<td>Neutral</td>
<td>Agree</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
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<td>---------</td>
<td>-------</td>
<td>---------------</td>
</tr>
<tr>
<td>The Wildlife Use and Management Scale.</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>and Wildlife Personnel, and Wildlife Rehabilitators to Facilitate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responses (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8
Trapping was morally wrong. About 42% believed hunting was morally wrong in conservation of threatened or endangered species. Nearly all believed that conservation was necessary to sustain the quality of life for people. Most groups identified human health and safety concerns. Only 12% believed hunting activity was helpful in addressing human health and safety concerns. Only 12% believed trapping, and 12% believed wildlife populations to control damage or behavior could be characterized as relatively opposed to a majority of rehabilitators' (Table 7).

Subgroup 1—Majority of Rehabilitators (Table 7).

Behavior was appropriate to conserve ecosystems (Table 7).

Conservation, 90% believed New Yorkers should do more to conserve the natural systems that support wildlife and that limits on human wildlife management programs considered issues of animal suffering (Table 8).

Rehabilitators also showed a strong, uniform interest in wildlife rehabilitation were uncertain about the degree to which New York State's wildlife programs move animals to areas where there was widespread agreement that those who use animals should do so in a way that minimizes animal pain and suffering. However, the majority of rehabilitators held a range of opinions on the management and use of wildlife (Table 7). They exhibited more uniform attitudes in other issue areas. There was widespread agreement that those who use animals should do so in a way that minimizes animal pain and suffering. However, the majority of rehabilitators held a range of opinions on the management and use of wildlife.
<table>
<thead>
<tr>
<th>3.8</th>
<th>4</th>
<th>8.7</th>
<th>8.8</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.0</td>
<td>3</td>
<td>12.3</td>
<td>7.4</td>
</tr>
<tr>
<td>9.7</td>
<td>1</td>
<td>15.1</td>
<td>2.7</td>
</tr>
</tbody>
</table>

**Wildlife Rehabilitation**

Division of Fish and Wildlife

Bureau of Wildlife

The people of New York are not doing enough to conserve the natural systems that wildlife depend on for survival.

Wildlife Rehabilitation

Division of Fish and Wildlife

Bureau of Wildlife

3.7

6.4

26.4

66.9

26.2

22.3

67.3

21.7

68.3

2.4

8

4.8

2.8

4.4

6.7

68.9

4.1

91.0

4.9

0

**Wildlife Rehabilitation**

Division of Fish and Wildlife

Bureau of Wildlife

A small number of species manage a large number of animals in their species diversity than it is to manage wildlife impacts on wildlife.

Wildlife Rehabilitation

Division of Fish and Wildlife

Bureau of Wildlife

It is unethical for society to restrict human activities to minimize negative impacts on wildlife.

Wildlife Rehabilitation

Division of Fish and Wildlife

Bureau of Wildlife

It is unethical for society to restrict human activities to minimize negative impacts on wildlife.

Wildlife Rehabilitation

Division of Fish and Wildlife

Bureau of Wildlife

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<th>Strongly Disagree</th>
<th>Disagree</th>
</tr>
</thead>
</table>

**The Wildlife Use and Management Scale:**

Wildlife and Wildlife Personnel, and Wildlife Rehabilitation to Facet 3 of

Responses (%) of Bureau of Wildlife Personnel, Division of Fish

Table 9.
Management scale used in this analysis.

Respondents who completed all items in both portions of the wildlife use and a result, some respondents (6% of Rehabilitators and 30% of BOM staff) elected a neutral to agree with the beliefs and values held by members of the other group. As respondents also were uncomfortable with the task of generalizing (or not to complete all items in this portion of the survey. Only those respondents in both surveys raised concerns about individual items presented graphically in Figures 2-5.

We used the grand mean of all items in each factor of the wildlife use and management scale to provide aggregate measures of agreement, accuracy, and congruency (I and II) between BOM and Rehabilitators. Factor I (Communication) and II (Coordination) gives society a vested interest in wildlife conservation.

Moreover, 92% agreed that using wildlife or endangered species. Moreover, 92% agreed that using wildlife not think resources spent on hunting would be better spent on conservation of view animals with reverence and participate in hunting. A majority (66%) did and trapping were morally wrong. Nearly all (97%) believed it was possible to limiting wildlife populations. Though some members of this subgroup opposed trapping for fur or hunting primarily as recreation, few believed that hunting general management activities such as hunting, trapping, or

Subgroup 2.--The Minority of Rehabilitators: The minority subgroup (29%)

manipulation of wildlife populations was ethical.

because it violated the rights of animals. Only 44% thought human
more likely to believe they would hold views similar to those of DEC
attitudinal subgroup. The more use-oriented minority of rehabilitators were
df, p=0.001). Expectations were quite different from members of the smaller
suffering (t=12.52, p=0.001), and ecosystem conservation (t=7.53, p=0.001)
with wildlife use and management (t=23.17, p=0.001), animal pain and
biologists would hold views different than their own on issues related to
Rehabilitators in the larger attitudinal subgroup expected that DEC

 df=0.20).

hold similar views on the importance of conserving ecosystems (t=0.001, p=0.001)
with dwarf (t=8.88, p=0.001), but would

hold similar views on the importance of conserving ecosystems (t=0.001, p=0.001)
with dwarf (t=8.88, p=0.001), but would

Congruency:

Importance of maintaining ecological systems (t=0.001, p=0.001)
no difference between Bow and the smaller attitudinal subgroup on the

Importance of maintaining ecological systems (t=0.001, p=0.001)
no difference between Bow and the smaller attitudinal subgroup on the

importance of maintaining ecological systems (t=0.001, p=0.001), and conservation of ecosystems (t=3.63, p=0.001)

importance of maintaining ecological systems (t=0.001, p=0.001), and conservation of ecosystems (t=3.63, p=0.001)

importance of maintaining ecological systems (t=0.001, p=0.001), and conservation of ecosystems (t=3.63, p=0.001)

agreement:

Agreement:

A comparison of actual mean factor scores for Bow staff and each

A comparison of actual mean factor scores for Bow staff and each

A comparison of actual mean factor scores for Bow staff and each

A comparison of actual mean factor scores for Bow staff and each

A comparison of actual mean factor scores for Bow staff and each
Figure 3. Actual mean scores of Bureau of Wildlife Personnel and Manager Scale.

Figure 2. Actual mean scores of Bureau of Wildlife Personnel and Rehabilitation Subgroups on factors in the Wildlife Use and Management Scale.
Supergroup held more accurate perceptions of the concerems BOM staff held on

\text{Rehabilitators in the smaller attitude}

They also underestimated the strong wildlife-use orientation among BOM staff.

They underestimated the concerems BOM staff held about animal suffering (t=2.64, p<0.01).

Supergroup held some misperceptions of key beliefs and values held by BOM staff.

Of BOM personnel on those issues, Rehabilitators in the larger attitude

Supergroup expected a "typical" DEC biologist to believe, and the actual beliefs

Figure 5 depicts the differences between what each Rehabilitator

tracking, and wildlife population control than BOM personnel would expect.

p<0.01). This subgroup of Rehabilitators was more likely to accept hunting, 

orientation held by the smaller subgroup of Rehabilitators (t=2.47, p<0.01)

BOM perceptions were a less accurate representation of the wildlife-use

larger subgroup in ecosystem conservation issues (t=-2.18, p<0.05).

However, BOM personnel underestimated the interest of the

attitudinal subgroup (factor I: t=0.69, p>0.50; factor 2: t=-0.14, p>0.50).

attitudinal subgroup, BOM estimates of attitudes on wildlife use and animal

perceive some of the key beliefs and values held by the main subgroup of

Rehabilitators. BOM personnel appeared to accurately

"typical" Rehabilitator to believe, and the actual beliefs of each

Figure 4 depicts the differences between what BOM personnel expected a

Accuracy:

t=1.92, p>0.50; factor 3: t=-0.45, p>0.50;

t=1.92, p>0.50; factor 3: t=-0.45, p>0.50.
Figure 5. Actual and perceived mean scores of Bureau of Wildlife personnel on factors in the Wildlife Use and Management Scale.

Figure 4. Actual and perceived mean scores of Rehabilitators on factors in the Wildlife Use and Management Scale.
Wildlife and the people of New York State. Most were dreamed to careers in
Bow staff are highly committed to their dual roles of service to the
Bow beliefs and values.

Challenge the assumptions these groups seem to hold of one another.
confirms the expectations of many managers and rehabilitationists; other findings
of wildlife managers and rehabilitationists, while some of our findings appear to
us to collect valuable documentation of the general attitudinal orientations
Despite its limitations, the Wildlife Use and Management Scale allowed
intend to refine it in the course of our ongoing research activities.
of the scale with each application. We believe the scale holds promise; we
3 different audiences, providing insights about the strengths and weaknesses
will hope to obtain. This study offered an opportunity to test our scale with
First attempt, this scale may not provide the richness of detail some readers
Management Scale is a result of our first efforts to meet that need. As a
needed to meet the information needs of this study. The Wildlife Use and
those addressed in previously developed scales. A new attitudinal scale was
stakeholders. However, the issues addressed in this study are different from
1989 (to assess beliefs and values among different wildlife management
developed different measurement scales (e.g., the WAVS scale (Purdy and Decker
between managers and rehabilitationists. Over the past 2 decades, HDRU has
This study provides a first look at the similarities and differences

DISCUSSION AND IMPLICATIONS

217 df, p<0.001).

underestimated the strong wildlife-use orientation among Bow staff (t=-5.07,
issues of animal suffering and ecosystem conservation, but they too
Rehabilitators' Beliefs and Values

Funding for a diverse wildlife management program is of great value to wildlife managers as they attempt to develop support and awareness of this distinction could be maintained among people who bring distressed animals to rehabilitation centers and the people who bring distressed animals to rehabilitation centers (Steele et al. [1992]). However, it is important for BOW personnel to be aware that the strength and cooperation between managers and rehabilitationists, and the effects such cooperation can have on BOW's ability to address its management responsibilities might have on BOW's ability to address its management needs. A relationship centered on the potential benefits of closer cooperation is deeply concerning and skeptical about the potential benefits of closer cooperation.
maintaining the integrity of the biotic systems on which all life depends, human use, and that we as a society should place more importance on interactions with wildlife should be conducted within societal standards of

are the beliefs that hunting to obtain food is appropriate, that human hold in common some fundamental beliefs and values. Among these commonalities distrust and miscommunication, but rehabilitationists and wildlife managers do their differences may result in a fundamental schism that creates tension.

populations, the other as protector of individual animals. In either case, different public service roles: one serving as conservator of viable wildlife. In either case, they may simply perceive themselves to occupy

very different views on the appropriate relationships between people and In particular instances, wildlife managers and rehabilitationists may have environment comparable to those held by natural resource managers.

Moreover, nearly all rehabilitationists appear to hold concerns about the natural use through hunting is appropriate, ethical, and beneficial to society.

in New York, beliefs about management of wildlife is appropriate, and that wildlife surprised to learn that a substantial portion of the rehabilitation community wildlife management or forms of wildlife utilization. Managers may be more

for that they are often personally opposed to some contemporary tools of rehabilitationists in New York State are highly concerned about animal suffering.

Wildlife managers may not be surprised to learn that the majority of

for the future of the rehabilitation program and DC/Rehabilitation Revisions.

stakeholder in wildlife management. They are uncertain about DC’s intentions

b). These beliefs and values identify rehabilitation as a contradiction

beneficial to wildlife and people (Stemer and Broom 1992; Stemer et al., 1992a, beliefs that caring for distressed wildlife is appropriate, important, and
office administration staff is effective and consistent.

Environmental Conservation Officers, regional wildlife managers, central management, and different members of DEC (e.g., wildlife rehabilitation co-ordinators) were found to understand the policies of the other to some extent. A strategic plan for communications planning on communications could lead to improved agency image and enhanced

planning for the rehabilitation program. These findings indicate that strategic communications have been shown where DEC's image has been assessed with other publics. However, a part of this communication (t.e., a favorable image of DEC's management) was revealed to be likely to perceive that DEC's image is little, interest in group wildlife rehabilitation was often neutral or positive, rehabilitation enabling and encouraging, while many rehabilitation held a neutral or positive image of rehabilitation and DEC's management. The agency image rehabilitation holds of DEC is simultaneously

Agency Image and Inter-group Communication

Where cooperation may be possible and mutually beneficial, a collaborative relationship may be possible and mutually beneficial. Comprehensive multi-stakeholder response planning offers some examples of areas (e.g., fish and wildlife biodiversity initiative) in which collaboration could be beneficial. In other areas, support for endangered area management and environmental issues, regardless of differences in values that may produce biologist and rehabilitation on a range of wildlife management and
Supergroup of Rehabilitators hold about DEC-Rehabilitator Relations. Additional
information is not sufficient to fully explain the positive perceptions members of this
cohort held about communication with Rehabilitators. The data we collected are
supergroup also were more likely to believe that DEC was interested in
they supported wildlife management. Members of the smaller attitudinal
"professional" that their actions contributed to wildlife conservation, that
held a positive image of Rehabilitators (e.g., that they could be regarded as
believe relations with DEC were supportive of Rehabilitators, and that DEC
oriented group was more likely than the other group of Rehabilitators to
is, they were closer to BOW staff in their attitudes. The smaller, use-
use-oriented in comparison to the larger, main body of Rehabilitators. That
contraction, the smaller attitudinal subgroups of Rehabilitators were relatively
perceptions held by the 2 attitudinal subgroups of Rehabilitators support that
when 2 groups of people hold similar beliefs and values. The different
some communication theory suggests that communication is facilitated
that Rehabilitators may be more attitudinally diverge than expected.
perception of our group members. Nevertheless, it does serve to demonstrate
a methodology, which by definition constrains a respondent to 1 general
must be interpreted cautiously! It is in part an artifact of communication as
and wildlife population control than BOW personnel would expect. This result
This subgroup of Rehabilitators was more likely to accept hunting, trapping,
the wildlife-attitude orientation held by the smaller subgroup of Rehabilitators.
BOW personnel held about Rehabilitators were not an accurate representation of
Rehabilitators held on key issues. However, it is noteworthy that perceptions
to hold perceptions fairly representative of the actual views many
In spite of any existing communication problems, BOW personnel appear
BOW, they may, in fact, represent the gender composition and key attitudes of
stakeholders. However, while they may be a nontraditional constituency for
identity rehabilitation as a group of nontraditional wildlife managers.

Traditional tools of wildlife management (e.g., fur trapping, hunting)
are female (68 percent), and the degree to which many participants oppose
development for the 21st century. The high proportion of rehabilitation
beliefs of the larger social issues facing DEC as it moves toward programs
relationships between wildlife managers and rehabilitators may serve as a
commonality.

Rehabilitators.

common interest each group has in the maintenance and stability of the
amount of shared meaning between groups and effective linkage the fundamental,
relationship between wildlife managers and rehabilitators; they limit the
facilitators. These differences represent real challenges to effective
different from those expressed through privately-operated rehabilitation
worldviews expressed via DEC management programs are likely to be very
resources and humans are their rightful stewards or caretakers. Thus, the
may not hold the traditional western view that wildlife are renewable
worldview. Our results suggest that a substantial number of rehabilitators
North America express an anthropocentric focus and a traditional stewardship
western society, wildlife management programs in New York State and across
society tradition. As an expression of the dominant environmental paradigm of
North American wildlife management is a product of western thought and
Broader Implications for the Bureau of Wildlife

between wildlife managers and rehabilitators.

subgroup could provide valuable insights for improving overall relationships
characterization of DEC interactions with rehabilitators in this attitudinal
characters, renaturalization, and sponsored development of a
characteristic rehabilitated, DEC also has revised the wildlife rehabilitation
which may be the most extensive effect yet undertaken by a state agency to
rehabilitation in New York. In addition to its sponsorship of this study
recent actions have been taken by DEC that will improve the environment for
exist on particular issues of animal treatment and environmental conservation,
accurate perceptions of each other, and attitudes toward common ground appear to
are many reasons for optimism. Both rehabilitation and DEC hold relatively
real barriers that could prevent better intergroup communication. But there
valued differences between wildlife managers and rehabilitators present

Closing remarks.

Public demands and expectations.

Attitudinal change in these areas would help BOW remain responsive to changing
personal commitments to environmental conservation. Continued monitoring of
differences toward wildlife use and management, animal rights and welfare, and
in a range of publics should be utilized to provide indicators of public
wherever possible, ongoing HDNU studies involving statutory samples of people
address the needs of other nontraditional constituencies. We suggest that.
program support, training, and communication that may arise as BOW strives to
BOW personnel and rehabilitators provide a barometer of the impediments to
human-nature interactions. To the degree that this is true, relations between
services may be expressions of a parastive shift in societal attitudes on
increased rehabilitation and increased public demand for rehabilitation
moral and humane issues in wildlife management. Growing participation in
rehabilitators, many publics across New York State hold strong concerns about

A great number of publics. There is evidence to suggest that, like
Literature Cited

Understanding and positive change.

address these questions, using this information as a foundation for better
and wildlife rehabilitation communities of New York where a responsibility to
managers and rehabilitators could or should interact. The wildlife management
this research, but will have unanswered many questions about how wildlife
all 3 study phases is planned. Our final synthesis will enhance the value of
starting point for continuing dialogue. A final synthesis of findings from
of people who delivered animals to rehabilitation centers, this document provides a
from phase 1 and a forthcoming publication reporting study phase III (a survey
managers and rehabilitators have been clarified. In combination with reports
through this collaboration, the key beliefs and values of wildlife
agency, university, and state (NYSDEC and national (NRMA) rehabilitation
This study represents the unique collaborative efforts of a state
training seminars.

rehabilitation to exchange information at rehabilitation conferences and
provided expanded opportunities for wildlife management professionals and
intergroup communication. State and national rehabilitation organizations have
1994b), the rehabilitation community also has taken steps to improve
new wildlife rehabilitation study guide and examination booklet (Pokras


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<table>
<thead>
<tr>
<th>Variable</th>
<th>Item Description</th>
<th>Factor 1$^a$</th>
<th>Factor 2$^b$</th>
<th>Factor 3$^c$</th>
</tr>
</thead>
<tbody>
<tr>
<td>88</td>
<td>Hunting is justified only when it is necessary to sustain human life.</td>
<td>0.8191</td>
<td></td>
<td></td>
</tr>
<tr>
<td>89</td>
<td>An important step in conserving a species of wildlife is to protect it from hunting.</td>
<td></td>
<td>0.9038</td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>Trapping wild animals is morally wrong if done primarily for recreation.</td>
<td></td>
<td>0.8097</td>
<td></td>
</tr>
<tr>
<td>92</td>
<td>Hunting wild animals is morally wrong if done primarily to obtain food.</td>
<td>0.7274</td>
<td></td>
<td></td>
</tr>
<tr>
<td>94</td>
<td>Killing wild animals to sell their fur is morally wrong.</td>
<td></td>
<td>0.8505</td>
<td></td>
</tr>
<tr>
<td>95</td>
<td>Hunting is morally wrong because it violates the right of an animal to exist.</td>
<td></td>
<td>0.8591</td>
<td></td>
</tr>
<tr>
<td>97</td>
<td>It is wrong to regard wild animals as a renewable source of food.</td>
<td></td>
<td>0.8504</td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>People who participate in trapping do not feel compassion for wildlife.</td>
<td></td>
<td></td>
<td>0.8444</td>
</tr>
<tr>
<td>99</td>
<td>Resources expended in New York to manage wildlife for hunting would be better spent on conservation of threatened and endangered wildlife.</td>
<td></td>
<td></td>
<td>0.8203</td>
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</tbody>
</table>
Values Related to Human Impacts on the Environment.

**Mildlife management and use values**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item Description</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Factor 1</td>
</tr>
<tr>
<td>0.6815</td>
<td>Systems wildlife depend on.</td>
<td>0.7149</td>
</tr>
<tr>
<td>0.6664</td>
<td>The people of New York are not doing enough to conserve the natural</td>
<td>0.9</td>
</tr>
<tr>
<td>0.7185</td>
<td>It is more important to manage for large populations in a few species.</td>
<td>0.69</td>
</tr>
<tr>
<td>0.7243</td>
<td>It is ethical for society to restrict human activities to minimize negative impacts on mildlife.</td>
<td>0.68</td>
</tr>
<tr>
<td>0.7185</td>
<td>Any user of wild animals should be concerned about animal suffering.</td>
<td>0.71</td>
</tr>
<tr>
<td>0.7512</td>
<td>Program York State's mildlife management is an important consideration in New</td>
<td>0.71</td>
</tr>
<tr>
<td></td>
<td>Minimizing animal pain and suffering.</td>
<td>0.71</td>
</tr>
</tbody>
</table>

Appendix A. Cont.
Rehabilitation attitude subgroup 2 (92% of all rehabilitators).

Rehabilitation attitude subgroup 1 (74% of all rehabilitators).

<table>
<thead>
<tr>
<th>System 2 (Coordination)</th>
<th>0.95</th>
<th>0.88</th>
<th>1.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>System 3 (Coordination)</td>
<td>1.33</td>
<td>1.39</td>
<td>1.16</td>
</tr>
</tbody>
</table>

**Factor 3: (Ecolologic)**

<table>
<thead>
<tr>
<th>Welfare (Coordination)</th>
<th>0.80</th>
<th>0.73</th>
<th>1.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welfare (Coordination)</td>
<td>1.44</td>
<td>1.40</td>
<td>1.37</td>
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</table>

**Factor 2: (Animal Pain and Suffering)**

<table>
<thead>
<tr>
<th>Use (Coordination)</th>
<th>0.89</th>
<th>0.92</th>
<th>1.05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use (Coordination)</td>
<td>0.69</td>
<td>0.52</td>
<td>0.63</td>
</tr>
</tbody>
</table>

**Factor 1: (Wildlife Use and Management)**

<table>
<thead>
<tr>
<th>All Group</th>
<th>Group 1</th>
<th>Group 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEP</td>
<td>1.39</td>
<td>1.55</td>
</tr>
<tr>
<td>Dec Personnel</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

**Mean Factor Score**

Appendix B. Mean factor scores on the wildlife use and management scale.