

A Survey of Animal Behavior-Related Research and Teaching Activities in North American Agricultural and Veterinary Medical Colleges¹

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A letter questionnaire was used to survey animal behavior-related research and teaching efforts in U.S.A. and Canadian university animal sciences departments (agriculture) and veterinary medical colleges. The objectives of the eleven questions of the survey were to identify behavior workers and to determine the current and planned levels of emphasis on research and teaching activities in domestic animal behavior. During 1981, questionnaires were mailed to 162 deans and chairmen, and 102 were answered and returned. Twenty-three persons were identified as having appointments specifically or primarily in animal behavior, and 99 persons were identified as having appointments that had some responsibilities in animal behavior. Twenty-two respondents reported that they offer an undergraduate course in animal behavior, ten of which were colleges of veterinary medicine. The behavior course was required for graduation by six of the veterinary medical colleges, but only two animal sciences departments taught a required course in animal behavior. Seventeen graduate programs in behavior were identified. Plans to increase the amount of effort in areas related to animal behavior were reported on 32 of the returned questionnaires.

Introduction

Abraham Lincoln once said, "If we could first know where we are and where we are tending, we could better judge what to do and how to do it." This paper reports efforts to determine the current status of animal behavior teaching

and research activities in U.S.A. and Canadian agricultural and veterinary medical colleges. It is suggested that this information will be helpful to persons who make decisions about the future of the discipline of animal behavior in agriculture and veterinary medicine.

Methods

During 1981, a questionnaire was mailed to 133 chairs of departments that deal with animal agriculture and 29 deans of colleges of veterinary medicine of North American (Canadian and U.S.A.) universities. Eleven questions were presented with the objectives of identifying personnel working in animal behavior and determining present and planned activities in domestic animal behavior, especially farm or agricultural animals. The questions are listed in Table 1. Additional information, such as names of workers and number of lectures, was requested for each question.

The animal sciences department from the largest agricultural university of each state was identified (Anonymous, 1980). These were primarily land-grant universities and therefore have federally supported research programs (Arnold, 1971). In general, these 50 selected animal sciences departments have larger student enrollments and more faculty than do other agricultural schools in the U.S.A. An additional 17 poultry science, 11 dairy science, and 12 veterinary science departments were identified within these 50 universities. The disciplines relating to poultry, dairy, and veterinary science (primarily health) are typically part of the animal sciences department, and when the collegial organization has a separate department for one or more of these areas, the faculty tend to have primarily research appointments.

An additional 36 animal science programs in Canada and the U.S.A. that offer a bachelor of science degree or higher were identified from "The College Blue Book" (Anonymous, 1981). These programs included 15 smaller land-grant universities, branch campuses of land-grant universities, private colleges, and state or provincially supported universities. Some of these programs are larger in number of students and faculty than the smaller animal sciences programs of the

50 land-grant universities, but in general, these are smaller departments that focus on undergraduate teaching and not research activity. Additionally, six major Canadian animal sciences departments with graduate programs were identified, and 29 veterinary medical colleges were surveyed, three of which were Canadian. Approximately six of the veterinary medical schools were started within the last 5 to 7 years and some were still developing new programs and hiring new faculty at the time this survey was conducted.

Survey Response and Results

A total of 102, or 63 percent, of the questionnaires was completed and returned. Results of the returned forms are summarized in Table 2. Twenty-three persons were identified as having teaching or research activities specifically in animal behavior, and 99 persons were identified whose work included some involvement with animal behavior. A preliminary list of these persons including names, addresses, and areas of interest was published in the *North American Applied Animal Ethology Newsletter* (Friend, 1981).

In most cases, it appeared that the chair or dean passed the questionnaire on to a person who had interests or work related to behavior who then answered and returned the form. The responses were probably more indicative of the total amount of farm animal behavior interest and activity in North American universities than a representative sample of the 162 departments. Based on my knowledge of behavior programs, it appeared that departments with behavior programs tended to reply, and those without programs tended not to reply. An exception may have been veterinary colleges which are organized with several departments, and thus, the questionnaire may not have reached all appropriate departments.

Aspey and Christenson (1982) prepared a listing of graduate programs in animal behavior for the Animal Behavior Soci-

TABLE 1 Questions Presented to Animal Sciences Department Chairs and Deans of Veterinary Medical Colleges in North America

| Number | Question |
|--------|--|
| 1 | Does your Department employ a person whose primary job involves teaching or research in animal behavior? |
| 2 | Does your Department employ a person who has some involvement with teaching or research in animal behavior? |
| 3 | Is animal behavior included in your introductory animal science (poultry, dairy, or veterinary science for respective departments) course? |
| 4 | Do you have a required course in animal behavior taught in your Department? |
| 5 | Do you have an elective course in animal behavior taught by a member of your Department? |
| 6 | Do you have a graduate course or seminar in animal behavior taught by a departmental member? |
| 7 | Is animal behavior taught in any of your management, nutrition, physiology, production, etc. courses? |
| 8 | Is animal welfare covered in any of your Department's courses? |
| 9 | Do you have a graduate program in animal behavior? |
| 10 | Do you have graduate students whose research topics deal with animal behavior? |
| 11 | Do you have plans to increase your teaching or research endeavors in animal behavior in the near future? |

ety. They identified ten graduate programs from departments in agricultural and veterinary medical colleges, and the current survey identified those ten programs and seven others. It was not possible to accurately assess the total number of students currently in graduate studies related to animal behavior. However, partial listings identified over 60 graduate projects which included domestic animal behavior in some way.

There was some tendency for relatively greater emphasis on behavior in Canadian animal sciences programs than in U.S.A. animal sciences programs. There was also considerable emphasis on behavior in veterinary medical colleges with six programs having required courses in animal behavior. The smaller colleges tended to cover animal behavior in introductory or management courses rather than in courses specifically on animal behavior.

This survey was an underestimate of the total number of researchers in North America. For example, researchers with the U.S. Department of Agriculture and the Canadian Department of Agriculture research centers were not included in the survey. However, Curtis and McGlone (1982) determined the status of farm animal behavior research in North America using journal reviews, computer data bank searches, and letter communications with identified researchers. Alexander (1982) reported that of the first 200 articles of *Applied Animal Ethology*, 53 articles were by U.S.A. workers and 16 from Canadian workers.

Thirty-two respondents indicated that their departments plan to increase teaching or research endeavors in animal behavior (Question 11). Three gave no details, six mentioned possible new courses, eight referred to specific research projects, seven indicated they

TABLE II Letter Survey of Animal Behavior Research and Teaching Activities and Personnel at American (USA) and Canadian (CAN) Agricultural and Veterinary Medical Colleges^a

| Category | Questionnaires | | | Question number ^e | | | | | | | | | | | Behavior personnel | |
|-------------------------------|----------------|-----------------|---------|------------------------------|----|----|---|----|----|----|----|----|----|----|-----------------------|------------------------|
| | Sent No. | Returned No. | Percent | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | Primary work (no.) | Secondary work(no.) |
| Animal Sci (CAN) | 6 | 5 | 83.3 | 3 | 2 | 4 | 1 | 1 | 1 | 4 | 4 | 2 | 3 | 1 | 3 | 6 |
| Animal Sci (USA) | 50 | 37 | 74.0 | 8 | 21 | 21 | 1 | 7 | 5 | 19 | 18 | 8 | 16 | 15 | 9 | 37 |
| Poultry Sci ^b | 18 | 13 | 72.2 | 2 | 8 | 5 | 0 | 2 | 1 | 8 | 6 | 3 | 4 | 3 | 2 | 18 |
| Dairy Sci | 11 | 7 | 63.6 | 0 | 2 | 5 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 4 |
| Veterinary Sci | 12 | 7 | 58.3 | 0 | 3 | 1 | 0 | 0 | 0 | 2 | 2 | 0 | 3 | 1 | 0 | 4 |
| Veterinary Med ^c | 29 | 15 | 51.7 | 7 | 7 | 7 | 6 | 4 | 4 | 8 | 10 | 4 | 5 | 8 | 8 | 18 |
| Other Animal Sci ^d | 36 | 18 | 50.0 | 1 | 9 | 14 | 0 | 0 | 0 | 13 | 8 | 0 | 1 | 4 | 1 | 12 |
| Total | 162 | 102 | 63.0 | 21 | 52 | 57 | 8 | 14 | 11 | 55 | 49 | 17 | 32 | 32 | 23 | 99 |

^aCategories are described in the text and the questions are listed in Table I.

^bIncludes one Canadian department.

^cIncludes three Canadian colleges.

^dIncludes three Canadian departments.

^eNumber of affirmative responses by category for each question are recorded within columns.

were considering new faculty positions, one listed adding animal welfare lectures, and six mentioned adding animal behavior lectures to existing courses. Three respondents qualified their answers by mentioning budget concerns, and an additional four responded "no" but gave details indicating that they would like to increase activities when their budgets permitted.

While this survey was not intended to determine the impact of animal welfare on animal behavior teaching and research, it appeared that the majority of the identified behavior programs were developed before or shortly after 1975 and thus before animal welfare was a major issue in North America. Approximately ten of the 23 primary behavior workers (Table 2) were studying behavior before the Brambell report of 1965 was published in Britain. Nevertheless, recent growth and intentions to expand animal behavior research and teaching activities were also identified in this survey of Canadian and American universities.

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