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# Illegal Harvest of Renewable Natural Resources in North America: Toward a Typology of the Motivations for Poaching

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*In many areas of North America, illegal hunting, fishing, and gathering of renewable natural resources are occurring with alarming and increasing frequency. Resource professionals, law enforcement officers, and the general public are becoming increasingly concerned about the poaching problem, as localized populations of wildlife, fish, and plant species are threatened with extirpation, and as legitimate users—consumptive and nonconsumptive alike—are deprived of resource utilization opportunities. An important step toward developing more effective environmental education, public information, and law enforcement programs to combat poaching is to develop an understanding of why people poach. Based on a literature review and content analysis, we summarized and classified the motivations for poaching that appeared in the literature into the following typology: (1) commercial gain, (2) household consumption, (3) recreational satisfactions, (4) trophy poaching, (5) thrill killing, (6) protection of self and property, (7) poaching as rebellion, (8) poaching as a traditional right, (9) disagreement with specific regulations, and (10) gamesmanship. This typology of motivational categories can serve as a useful heuristic tool to guide future empirical studies of poaching, as well as to assist resource managers in developing effective antipoaching programs.*

**Keywords** illegal harvest, law enforcement, motivations, natural resources, poaching, wildlife

Evidence has been accumulating over the past several years which suggests that poaching in North America is markedly on the increase. Mass media publications, including newspapers and newsmagazines, have carried numerous recent articles reporting poaching-related crimes. Television programs, such as the National Audubon Society's documentary, *Greed, Guns, and Wildlife*, and the National Geographic Explorer Series entitled, *Wildlife Wars*, documented poaching activities ranging from Alaska, to Louisiana, to Massachusetts, as well as the illegal international trade in wildlife products. In addition, articles appearing in numerous popular publications—from *Field and Stream*, to *Audubon*, to *National Geographic*—have served to keep the poaching problem in the public eye. Reports by resource management agencies and nongovernmental organizations, both in the United States (Bender 1981; National Park Service n.d. 1988; Smith et al. 1994) and Canada (Bodden 1985; Boxall and Smith 1987; Gregorich 1992; Special Investigations

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Unit n.d., 1983) have brought the issue to the attention of social science researchers, resource managers, and policymakers.

Within contemporary North America, the list of illegally harvested species continues to lengthen. It includes various species of big game animals harvested for meat, as trophies, and for their parts (e.g., black bears for their gallbladders and paws); marine mammals (e.g., for walrus ivory); small game; furbearers; birds (e.g., raptors, waterfowl, and turkeys); reptiles; insects; amphibians; fish; and shellfish. Neither are plant species immune. Plant poaching spans a spectrum that includes the illegal harvest of ginseng root, rare orchids, endangered cacti, pitcher plants and Venus flytraps, and tree species such as aspen and western red cedar.

The risk of apprehension, and the time, energy, and equipment expended in the illegal pursuit of fish, wildlife, and plants, often can be justified by perpetrators on the basis of prices reportedly paid for certain species. Estimates of America's illegal market in wildlife have been placed at \$200 million (Hanback 1992; Poter 1991). According to some reports (e.g., Parker and Wolok 1992; Poter 1991), illegally harvested bald eagles sell for \$2,500 on the black market; the right length of a large diameter western redcedar tree commands the same price as a bighorn sheep mount—\$10,000 and up; a live saguaro cactus, \$15,000; a trophy grizzly bear, \$25,000; in one instance of dried and powdered bear gallbladders, approximately \$64,000 on the Asian medicinal market; and certain falcon species, \$100,000 apiece to serious aficionados of falconry.

At the same time that poaching has become more widespread and sophisticated, the problem has become more complex. Communication and transportation technology facilitate the international and transcultural diffusion of information and illegally procured products. In addition, poaching often is embedded in subcultural webs of meaning that involve tradition, ethnic heritage, individual and social identities, and other sociocultural factors. For example, hunting black bears in the Great Smoky Mountains National Park, in order to sell their gallbladders to Asian markets, not only provides extra income but also is a form of traditional recreation for residents of the Appalachian region. An unemployed logger who poaches western redcedar trees on the Olympic National Forest may be doing so at one level for the cash income, but the act may also represent an activity (logging, resource extraction) that resonates more closely with his or her well-developed occupational identity than with the alternative of driving a tour bus. Harvest of intertidal resources not only is an enjoyable family activity, but it provides familiar foods that may serve as a cultural anchor for recent Asian immigrant families. Unfortunately, if this activity takes place on a closed beach (such as in the Cape Cod National Seashore), it is unlawful. In these examples, illegal resource harvest and use are associated with a complex mix of values and meanings.

In light of the magnitude and complexity of the poaching problem, there has been surprisingly little systematic, applied social science research focusing on poaching behavior. Although there are several excellent individual publications reporting the results of research conducted on poaching, a significant body of literature that constitutes a cumulative and critical mass of scientific findings is yet to be forthcoming. The profession has yet to develop much of a learning curve, in which scientific investigations build on previous foundations to extend what is known about poaching, and to apply this knowledge to poaching prevention programs. This is beginning to change, however, as resource management agencies and individual researchers turn their attention toward developing solutions to this pressing problem. An important point of departure for research on poaching should be the comprehensive identification and classification of the motivations for poaching.

## Previous Attempts to Categorize Poachers

Poaching is receiving more attention from the human dimensions research community, and a few studies have been conducted that have systematically examined the psychological dynamics or sociocultural context of poaching (e.g., Bowe 1994; Curcione 1992; Forsyth and Marckese 1993; McCay 1984; Scialfa 1993; Wilson 1978, 1990). Several authors have attempted to categorize poachers according to various characteristics or specific criteria. Stoll (1975), for example, differentiated poachers on the basis of intentional violations as opposed to unintentional ones, while Glover and Baskett (1984) identified commercial and recreational motives for poaching. More comprehensive categorizations range from an informal listing of poacher "types" by Poten (1991) to more intuitive classification schemes proposed by Parker and Wolok (1992), who divided poachers into two large categories, commercial and noncommercial. Within these categories, smaller subcategories are posed, such as "trophy" hunters, "slob" hunters, and "opportunistic" poachers.

Two of the more systematic attempts to classify poachers were undertaken by Bessey (1984, 1985) and Gregorich (1992). Based on the results of interviews with 95 poachers, Bessey (1984) classified poachers into three violation types: (1) property-oriented violators, who were most apt to poach for immediate gain, such as meat or money; (2) dangerous offense violators, whose poaching activities were part of a lifestyle characterized by frequent criminal activity and "procedural" violations, such as shooting from a road or within a safety zone; and (3) unethical methods violators, whose activities can be described as "thrill seeking." Bessey (1985, 11) described these three violator types as "self-indulgent," "shooters," and "thrill seekers," respectively. Bessey's work is important because it distinguished between offenders whose poaching activity is apt to be an opportunistic, perhaps isolated, behavior, and those whose poaching activity is embedded within a broader spectrum of criminal activity that might include drug dealing, firearms violations, and illegally trafficking in wildlife parts. Gregorich (1992) extended the work of Bessey by adding categories called "rebellious" against the state, and the criminal poacher (offenders mainly involved in buying and selling wildlife or their parts).

Although these efforts represent creative and original attempts to identify and, in some cases, categorize the motives of poachers, we feel that they fall short of systematically and comprehensively identifying the full range of motivations that characterize the poaching population. In the remainder of this article, we discuss the approach that we used to build on these previous efforts to construct a more comprehensive typology of the reasons why people poach. We begin by presenting the definition of poaching that guided our effort, then briefly describe our methodology, and present the typology of motivations that were identified. We conclude by posing questions for further research.

## Definition of Poaching

Building on a broad definition of poaching developed by Gregorich (1992), we define *poaching* as any act that intentionally contravenes the laws and regulations established to protect wild, renewable resources, such as plants, mammals, birds, insects, reptiles, amphibians, fish, and shellfish. These behaviors most often are illegal *harvesting* activities, but they also may include the illegal sale, purchase, transport, possession, and use of wild resources or their parts that are protected by law. It is important to note that this definition purposely excludes law violators who unintentionally or accidentally contravene acts and regulations. A hunter who mistakenly shoots a hen pheasant in a rooster only area is not a poacher by our definition (although he or she has broken a wildlife law and may be

prosecuted). But, if the hunter picks it up and takes it home, knowing that it is illegal to possess a hen pheasant, we define that behavior as an act of poaching. Thus, to qualify as poaching, the illegal act must have a conscious intent.

### ***Literature Review and Content Analysis***

We initiated a literature review to identify and gather publications that addressed poaching-related motivations. After relevant material was identified, a content analysis was employed to classify motivations and to construct motivational categories.

*Scope of the Literature Review.* Since our aim was to explore poaching in contemporary North America, we focused on the popular, professional, and scientific literature related to poaching in the United States and Canada published since 1965, an arbitrary cutoff date dictated by practical limits of the study. The literature review began with a manual review of several serial publications (e.g., *Transactions of the North American Wildlife and Natural Resources Conference*, *Wildlife Society Bulletin*, and *Proceedings of the Southeast Conference of Fish and Wildlife Agencies*) and monographs assumed to include poaching-related material. These publications were reviewed beginning with 1965 or their initial volume of publication, whichever was latest. Several searches of computerized databases also were conducted. In this phase of the search, selected key words, such as "poaching," "illegal harvest," and "law violations," were employed to identify relevant articles. When used with delimiters, such as "fish" and "wildlife," the words "theft" and "illicit" also yielded relevant sources. Whenever a useful publication was identified, its "literature cited" section was reviewed to identify possible additional sources.

A search also was conducted of the database maintained by the Fish and Wildlife Reference Service, as well as the Wildlife Worldwide CD-ROM system. Other sources included Dissertation Abstracts International, General Science Index, Social Science Citation Index, Current Contents on Diskette (both the social and biological components), and Info-Trac. Searches using all of these systems yielded citations of interest. Personal communications with several natural resource professionals, both in the United States and Canada, were initiated. These individuals included authors, editors, and wildlife protection officers, as well as professionals from wildlife management agencies and universities. They all were extremely helpful in assisting us to find additional publications related to the multiple motives of poaching.

*Content Analysis.* As defined by Stone et al. (1966, 5), *content analysis* is "a research technique for making inferences by systematically and objectively identifying specified characteristics within a text." In this review, the content analysis was conducted in two stages. The first stage was searching for manifest content. In this stage, the text was reviewed for obvious indicators of motivational content, such as key words (Babbie 1986). The second phase consisted of analysis of latent or underlying content, in which less direct indicators, such as context, and associated attributes and characteristics were identified and analyzed.

An outline containing initial motivational categories and associated key words was developed a priori to conducting the content analysis. Each publication that resulted from the literature search was initially reviewed to determine whether it contained content related to poaching motivations. If so, it was subjected to a more in-depth and systematic review to identify statements, quotes, or opinions by the author(s), wildlife officers or resource managers, and the poachers themselves with the intent of identifying key words or

phrases related to the motivational categories. As each key word (or phrase) was found, a coded notation was placed next to that word which identified it as corresponding to a specific motivational category.

Publications which were deemed to possess latent content were reviewed a third time with the objective of coding and assigning latent content (associated characteristics, attributes, contexts, and so forth) into motivational categories. For example, a violator might be described as poaching for the purpose of experiencing the satisfactions (e.g., to test one's skills, for the challenge, to be in the out-of-doors) identified through previous research as characterizing legitimate recreational hunters. In this case, the latent content suggested that this poacher was motivated by recreational reasons, and the motivational content was coded as "recreational." In these cases, coded notations were placed next to the text to identify its corresponding motivational category.

As the review progressed, it became evident that different key words or phrases were used by authors of different publications to describe essentially the same thematic content of meaning. In these cases, the categories were given a standard name, such as "recreational," to subsume the variety of descriptors meaning essentially the same thing (e.g., "fun," "pleasure," "sport," "recreational"). In addition, it soon became evident that categories of motivations were being mentioned that were not subsumed by the a priori categories. In these cases, additional categories were developed to capture the meaning of the new motivational content that emerged. New categories were reviewed and thoroughly discussed before it was decided to add them to the typology. In this way, the typology became more comprehensive as new motivational categories were added.

### *A Typology of Motivations for Poaching*

The motivational categories that make up the typology were distilled from a literature that included a wide range of published material, much of which lacked the rigorous methodology that characterizes systematic scientific endeavors. Development of the typology thus relied on literature in which motives were often ascribed or imputed to poachers, as well as on literature reporting the results of empirical studies in which poachers themselves were interviewed or surveyed. Although the motivational categories distilled from the literature may make intuitive sense, the often speculative nature of the literature from which it is derived suggests that this typology must be interpreted with caution. Empirical verification of the existence of many of these motives in the real-world poaching population has yet to be confirmed by a cumulative body of social scientific research.

With these limitations in mind, we identified several categories of motivations through the content analysis that have been posited to influence people to engage in poaching-related, natural resource law violations. They have been formulated into a typology that includes the following 10 categories: (1) commercial gain, (2) household consumption, (3) recreational satisfactions, (4) trophy poaching, (5) thrill killing, (6) protection of self and property, (7) poaching as rebellion, (8) poaching as a traditional right of use, (9) disagreement with specific regulations, and (10) gamesmanship. These categories are described in greater detail below. (The citations and quotations used to support the existence of each motivational category are by no means exhaustive. Rather, they are illustrative of the material that we drew on to develop each category.)

*Poaching for Commercial Gain.* Poaching for commercial gain involves the illegal harvest or sale of fish, wildlife, and plant species for the purposes of gaining economic bene-

fits. In some cases, commercial gain is derived from selling whole individual specimens, such as stolen aspen saplings sold to homeowners for landscaping purposes (Buehrer 1987), saguaro cacti sold to collectors (Steinhart 1982), falcons destined for Middle East falconers (Robbins 1985), or live elk sold to game ranches or hunting preserves (*New York Times* 1989). In other cases, parts and products are sold, such as fish and shellfish (McCay 1984), bald eagle feathers (Marler 1986), elk antlers (McCafferty 1984), walrus ivory (Reisner 1991), or bear paws and gallbladders (Van Biema 1994).

Research in which actual poachers have been studied often confirms a commercial motive for poaching. In a survey to determine characteristics and attitudes of deer hunters and deer law violators in Michigan, results indicated that about 1.6% of the violations was undertaken for commercial motives (Kesel 1974). Similarly, Glover (1982) reported that 2.4% of deer poachers in Missouri acknowledged having commercial motives. Sawhill and Winkel (1974), however, found a much higher rate of commercial poaching in New Jersey. Of those poachers interviewed, "twenty percent . . . have illegally killed deer for profit" (p. 717).

Data documenting the extent to which poaching activity is commercially motivated in the United States has not been systematically collected on a national level in either the United States or Canada. Poten (1991, 112), however, cited U.S. Fish and Wildlife agent, Doug Goessman, who compared commercial wildlife violations with car theft: "The claws, head, teeth, all parts of the bear are sold like a stripped down car." Hanback (1992, 73) further suggested that the level of commercial activity is so lucrative that there is "disturbing evidence [of] drug cartels, 'Mafia', and international rings, such as 'Asian posses' dealing in bear gallbladders." "Organized crime is lured not only by lucrative, tax free profits, but also by the reality that America's wildlife law enforcement is understaffed and financially strapped" (p. 73). Milstein (1989, 21) cited Saguaro Cactus National Monument ranger, Chuck Scott, as describing commercial cactus poaching as "cash and carry. . . . They [the poachers] have a buyer lined up, they know what they want, they pick it up and are gone in seconds."

*Poaching for Household Consumption.* Poaching for household consumption or use is the illegal taking of fish, wildlife, or plants for the provision of meat or other products (e.g., ginseng, firewood) for consumption within the household, or for the noncommercial sharing among extended family or friends. Elicit harvest motivated by household consumption most likely involves game species that provide desirable, high-quality meat. This would include deer (most species), elk, moose, caribou, turkey, ducks and geese, and fish. To a lesser extent, it also may include other species, such as bighorn sheep (Irby, Swenson, and Stewart 1989). People poach wildlife and fish species for home consumption either because these desirable and unique foods (e.g., elk or deer meat) cannot be obtained legally through the market, or because poaching them is a way to procure meat inexpensively.

Although traditionally associated with economically marginal subsistence households, poaching to supplement one's family food budget occurs across income levels. Merwin (1972) implied that poaching occurs even when there is no physical, nutritional, or economic dependency on illegally harvested game to supplement the household diet. He observed that "[a]nyone might be a meat-poacher . . . they [conservation officers] have arrested carpenters, janitors, religious leaders, college students, and community leaders" (p. 142). Several empirical studies have supported this contention.

Kaminsky and Giles (1974, 732) reported that 25% of wildlife agents responded to a survey question about perceived reasons for illegal spotlighting of deer by saying that

"the reason was to obtain deer for home consumption." In a similar vein, Sawhill and Winkel (1974, 717) said that most violators responded in interviews "that they kill the deer for the meat." Scialfa (1993, 273) reported the poachers that he interviewed felt that "taking an animal was legal under most circumstances as long as the animal was used as food." He found further that violators may take game animals simply because they prefer "game meat to store bought [domestic] meat," and suggested that "poaching is an efficient manner of harvesting food" regardless of whether there is a household dependency or not (p. 273). Similarly, Greber (1982) asserted that poaching for meat is present in Canada, especially in Canadian parks. He referred to poachers motivated for household consumption as the "meat hungry poacher sneaking into the park to fill a freezer" (p. 11).

Some poachers, knowing that poverty and personal need are more socially acceptable reasons for poaching, may also use these excuses as a defense to avoid being arrested or fined. Glover (1982) reasoned that at least some of the 50% of violators who asserted that household consumption and need was their primary motive behind wildlife violations did so in an attempt "to make their arrests seem more socially acceptable to local citizens . . . citizens would think that the violators were simply providing food for their families and, as a result, would be sympathetic to the acts of poaching" (pp. 129-130).

*Recreational Poaching.* The multiple satisfactions and benefits that derive to people who hunt and fish for recreation have been well documented, and they include such things as companionship, the challenge of tracking and stalking, the excitement, feeling as a part of nature, testing one's skills, and using one's equipment. Oftentimes, people will engage in the unlawful harvest of fish and game for the purpose of experiencing the satisfactions associated with hunting and fishing as a legitimate recreational activity. In these cases, hunting to experience recreational satisfactions becomes poaching driven by these same recreational motives.

In many cases, poaching by sport hunters and recreational anglers occurs during the regular hunting or fishing season, when illegal harvest takes place under the "cover" of a legitimate activity. Recreational duck hunters, whether using public duck blinds, or corporate or commercial hunting clubs, have been observed committing violations ranging from shooting before and after legal hours, shooting over bait, shooting illegal species, failing to retrieve cripples, and shooting over limit (Arimond and Jackson 1992; Hall 1987). Recreational motivations can be seen in the results of interviews conducted with convicted waterfowl hunters as reported by Arimond and Jackson (1992, 144): "Fourteen percent of the arrests were due to the opportunity or fun and excitement of the moment. Many stated they could not resist the opportunity to finally take birds. Other violators in this group claimed they were having too much fun to quit shooting."

These motives are similar to those identified by Curcione (1992) in a study of party boat participants who violated sport fisheries regulations by exceeding their legal limits. The presence of recreational motives can be seen in some of the remarks made by Curcione's subjects. These include such comments as "when I started getting good [at fishing] it was really fun to give my dad some competition. We never thought about limits. When the action was wide open we just kept ripping them [reeling them in] until the bite shut off." Other comments were similar, "I don't care what anybody says, the real fun is pulling on fish. I learned that early on. That's what it is all about. So what if you go over the limit?" (Curcione 1992, 45).

Research conducted by Scialfa (1993) in Idaho and eastern Washington added considerable insight into the recreational motivations of poachers. "As the majority [of



poachers] did not conceptualize their hunting behavior as either poaching or illegal, it comes as little surprise that many of the reported reasons for poaching were held to be similar to those of legal hunting" (Scialfa 1993, 252). Typical perspectives offered by a number of his informants included the following: "For me, it's [poaching is] hunting for the sport. If they're [ducks are] flying, I want to shoot them." "For a good time. To get outside and in the woods . . . to enjoy the outdoors and relax" (Scialfa 1993, 252).

Finally, the importance of companionship, such an important satisfaction for many legitimate sport hunters, is also in evidence as a motive among poachers. As one of Scialfa's informants indicated, "Hunting was never the major reason [for poaching]. It was to be with friends and have a good time. I enjoyed these guys' company and I just went along. I didn't know it was illegal at first. When I did, I helped because I enjoyed the friendship" (Scialfa 1993, 255).

*Trophy Poaching.* Just as many legitimate sportsmen and sportswomen are motivated by the desire to acquire a trophy, many poachers are similarly motivated by the feelings of accomplishment and pride associated with harvesting trophy fish and wildlife. For other poachers, however, the acquisition of a trophy may have little to do with the actual hunt itself. It instead may be motivated solely by the desire to possess or display a trophy, an "obsession . . . to possess, at any cost, these symbols of power and freedom" (Poten 1991, 119). The animal is generally taken for a particular physical characteristic only (e.g., antlers, horns, hide, or skull; body size).

However, a person who wishes to acquire a trophy for display on his or her home or office wall, but is unable to procure one in an area or season open to hunting, instead may turn to poaching one in a national park (where hunting is outlawed). As Poten (1991, 110) noted, "For the biggest trophies, collectors sometimes cross into national parks and shoot elk, deer, mountain goats, grizzlies, and bighorn sheep for the record book, wall mounts, pictures in albums, and quick profits."

Several observers believe that trophy poaching is on the rise, in some respects due to the fact that those seeking to harvest or otherwise acquire an illegal trophy increasingly are willing to pay big money for the opportunity. Poten (1991, 124) quoted one U.S. Fish and Wildlife Service agent: "Seventy percent of my caseload involves trophy poaching." According to Fabich (1980, 184), "Another type of poaching that has been around for a long time and is increasing every year is trophy poaching." "Since I have worked as a game warden, I have seen just about every species of game animal in Montana poached for the trophy parts."

Similarly, Lapinski (1994) recently discussed the case of Don Lewis, a high-profile bow hunter and guide who was apprehended for illegally harvesting several trophy elk within the boundaries of Yellowstone National Park. Lapinski asserted that Lewis was induced to poach trophy animals by "the financial and social pressure that was placed on him by other well known hunters and by corporate sponsorship" (p. 52).

The intensity of the trophy poaching motivation is provided by the example of a Texas banker who paid \$20,000 for a set of record book white-tailed deer antlers which he then proceeded to have mounted on the skull of a Mexican deer (National Geographic Society 1991; Poten 1991). After Canadian officials recognized the antlers in an *Outdoor Life* article as having been stolen from a Canadian taxidermy shop, the violator was sentenced to 5 years probation and a \$20,000 fine. In an interview with U.S. Fish and Wildlife Service special agent, Dave Hall, discussing the incident, the violator said, "I felt that my hunting career would not be complete without a Boone and Crockett [record book] buck. So I made arrangements with a dealer that would transfer record class antlers

to a Mexican buck." Additionally, he said that he did it because of the "notoriety and recognition" of procuring a trophy animal (National Geographic Society 1991).

*Poaching as Thrill Killing.* Thrill killing is the illegal taking of wildlife species primarily for the psychological or emotional thrill of killing a living animal—watching it get hit, watching it crumple to the ground, and watching it die. These poachers generally are not interested in the meat or trophies; rather, they enjoy the psychological or emotional charge simply from killing an animal. Thrill killing is differentiated from emotions felt by hunters who describe "the thrill of the hunt," in which the totality of the hunting experience is what is exciting. Thrill killing is most often represented by the killing of one or more individual animals that are left where they are shot. Nothing, including usable meat, commercially valuable body parts, or trophy racks, is taken from the carcass.

In describing Alex Mota, a notorious poacher who was the subject of a 22-man enforcement team comprised of law enforcement personnel from several Canadian provinces, Dolphin (1993, 12) referred to him as a "one-man killing machine." "who kills animals not for the meat or for profit, and rarely for the trophy, but for the simple thrill of killing."

On occasion, law enforcement personnel have characterized thrill killers as being mentally unbalanced. During an investigation of two bull elk that were killed and left to rot, Clint Rand, a conservation officer with the Idaho Department of Fish and Game, asserted that "[t]he people who do this are psychopathic killers. They do it for the sheer joy of killing the animal and nothing more" (Powell 1994, 1). This is similar to the language used by Lewis (1976, 29) to characterize thrill killing, "The sick degenerate that shoots wildlife for the thrill of it, then leaves it to rot is unfortunately not too uncommon in Colorado."

In discussing different kinds of poachers, Gregorich (1992, 2) observed, "In the personal gratification category are people who take wildlife, in numbers far exceeding the limits, strictly for the thrill of killing as many animals as possible without getting caught." Sawhill and Winkel (1974, 717) showed that 8% of questionnaire respondents answered "for the hell of it" or "to see if they could hit it and had no interest in picking it up for any purpose."

*Poaching to Protect Self and Property.* Violators motivated by protection of self or property illegally kill fish and wildlife species because the violator believes that they represent a threat to his or her property, livelihood, or game species that he or she fishes for or hunts. This may include the illegal shooting of ungulates that destroy crops, the unlawful trapping of "nuisance" animals, or the illegal poisoning of predators that threaten domestic livestock or big game species. Individuals who poach to protect their property may be motivated somewhat by disenchantment with the reimbursement plans (if any) for livestock or crop depredation that state management agencies have established, and they may feel that they have to take the initiative in controlling depredating animals through illegal harvest.

Scialfa (1993), for example, reported that protection of property and big game species was used as a justification among his informants to kill certain species illegally. Informants that he interviewed killed certain species because of the "threat they posed to hunting or agricultural interests." One informant killed magpies because "they ate your dog food" and "were good for nothing" (p. 190). Another informant had illegally killed several gulls and a great blue heron in an effort to reduce predation on fish stocks while working for a private fish hatchery.

In *Incident at Eagle Ranch*, Schueler (1980) described the events surrounding the illegal destruction of protected raptors. Several ranch company employees and a government trapper were charged with illegally killing eagles because they were perceived to

prey on sheep. Schueler (1980, 29) indicated that one of the accused was known to have killed falcons because "even the smaller raptors preyed on sheep." Similarly, Speart (1992) has documented the widespread illegal poisoning of bald eagles, golden eagles, and other predators that has occurred in the western United States. She reported that "[a]ccording to Terry Grosz, the agent in charge of the Rocky Mountain region for the Fish and Wildlife Service (FWS), poisoning is taking place 'in Canada and Mexico and in all the states in between' " (p. 60).

*Poaching as Rebellion.* Poaching as an act of protest or rebellion against the state (or other ruling elites) has a rich tradition grounded in the historical class struggles of Europe (Jones 1979; Manning 1993; Trench 1967). This impulse also is ascribed to contemporary poachers, as Gregorich (1992, 62–63) observed, "poaching today finds the common person defying the law of the land in an attempt to wrench from the state what he believes is rightfully his and thus righting a wrong between classes. Machlis refers to this as the 'Robin Hood Syndrome.' " Similarly, one wildlife agent cited by Poten (1991, 112) stated, "People have romantic ideas about wild meat . . . they see the mountain man. Or Robin Hood. They do not see the poacher."

Poachers motivated by rebellion appear to be acting out a more generalized notion of protest against an antiegalitarian authority (as embodied by the state or ruling elites). McCay (1984, 18) noted that, in Europe, the laws and regulations governing access to fisheries resources were grounded in social class considerations" and lower classes came to have least access to valuable fish resources" with the result that this "enclosure of the piscatorial commons often evoked piracy." She found evidence that similar egalitarian considerations were manifest among commercial fish and shellfish poachers in New Jersey, where "Poaching, or 'water piracy,' was often justified under the popular sentiment, expressed in one of Sir Walter Scott's novels, that the poor ' . . . have as much right to the fish as the lairds [lords] have.' Enclosure also constricted common rights of piscary in the New World and to similar effect" (p. 18).

Poaching for rebellious expression was referred to in several studies, although at a relatively low rate of frequency. Glover (1982), for example, reported that less than 1% of the violations observed in his study were a form of rebellion, while Kesel (1974, 31) reported that results of his violator survey indicated that close to 6% of violations were "for dislike of the Department of Natural Resources."

*Poaching as a Traditional Right of Use.* For some individuals, poaching is motivated by a sense that traditional rights of access, or participation in a traditional activity, have been unjustly prohibited. They perceive that they possess traditional rights of land tenure and resource use, and they expect a continuation of the hunting, fishing, and gathering privileges that have been available to them in the past, sometimes for generations. When these rights are denied by closure or posting of land, or by changes in regulations or land-use designations (e.g., establishment of a national wildlife refuge or a national park using previously accessible, often private, land), resentment or feelings of injustice arise on the part of traditional users.

Daisey and Hall (1989) provided an example of poaching motivated by traditional use and resentment toward the U.S. Fish and Wildlife Service by rural residents in coastal Maryland and Virginia who, for generations, had traditionally depended on duck hunting for subsistence and income. Their way of life was threatened when the marshes and ducks that they traditionally had relied on for survival were legislatively transformed into wildlife refuges managed by the U.S. Fish and Wildlife Service. One well-known poacher in the area recalled,

All de people, dem times made der liven off de land. . . . They oystered, clammed, dey fished, and broung em home and eat em, put em in a boat, and broung em over to Chincoteague and sold em. Well, den Sam Field bought de Assateague. He took it over and move most of de people off de island. And it was der livelihood. But anyway then the Fish and Wildlife come along and takes it, takes it for the ducks. And where you take something away from people, that they been used to hunt all der life, you really make em mad. . . . There's been a hardship on de people. . . . I think dats one of the reasons why dats ders been lack of respect for der wildlife laws. (Daisey and Hall 1989, 213)

Another example is provided by the illegal harvest of black bears in Great Smoky Mountains National Park. Bear hunting in the area that is now the national park was a family tradition of Appalachian residents long before Congress established the park. Hunting, which became illegal with designation of the park, continued to occur on traditional use areas within the park. Concerning the continuation of traditional bear hunting, one of the descendants of a displaced family commented, "Ain't no way anybody is going to take my bear hunting away. Ain't no way." He went on to say that "you're not going to stop the poaching in Graham County, or on the National Park" (National Audubon Society 1993).

In examining fish and shellfish poaching in a specific area of coastal New Jersey, McCay (1984) found that the traditional right of access and use was one of the justifications for "oyster piracy, lobster bootlegging, clam poaching, and illegal dragging and seining" by people engaged in "piscatorial piracy." As enclosure of beaches and intertidal areas converted common property shellfish beds to private ownership, and as depletion of fish stocks resulted in perceived deprivation of common use rights, illegal harvest of marine resources increased. It occurred partly in protest over discriminatory laws and as "a tool of social action in opposition to enclosure of the marine commons" (McCay 1984, 17). In summing up the moral rationale for piscatorial piracy, McCay (1984, 34) persuasively argued that "the moral economy of the baymen is what it was a long time ago, ' . . . it is the unalienable right of every man to earn his own living as long as it does not harm his fellow man,' " a right grounded in traditional patterns of land tenure and resource use.

*Disagreement with Specific Regulations.* Some people are motivated to poach because they object to the content of regulations governing renewable resource use or the methods by which they are implemented. This category of motivations is different than the "rebellion" category, in that it does not represent a generalized symbolic rebellion against the state or other ruling elites. Rather, it is a reaction against specific regulations. Poachers who disagree with specific regulations (and thus rationalize breaking them) may do so because they doubt the soundness of the regulation's scientific or biological basis, or because they believe that the regulations are biased in favor of other groups (e.g., subsistence hunters, commercial fishermen, and urban hunters).

Although they believed in the necessity of regulations, violators interviewed in Curcione's (1992, 47) study of recreational party boat fishers felt that fishing regulations should be more directly focused at the "commercial sector, which they [his informants] see as the major culprit in the depletion of fisheries stocks." The violators in Curcione's study justified their poaching behavior by saying that they were only "getting one's fair share." One informant (Curcione 1992, 46) commented that "[m]ost of them [limits] are unrealistic anyway. I mean, you tell me what harm a guy is going to do with a rod and reel, compared with a commercial seiner that wraps five or six tons [of tuna] in an hour." In this case, the violator believed that recreational fishermen have little or no biological

impact compared to commercial fishing operations, and subsequently felt that the sport fishing regulations unreasonably discriminated against him.

On the other hand, some commercial fishermen harbor similar feelings that they are being discriminated against. Fish and shellfish poachers studied by McCay (1984) contended that regulations do not take into account the effects that they will have on small-scale commercial fishermen. A period of difficult and unstable economy motivated some fishermen to harvest illegally because they felt that the regulations did not allow them to take enough fish to survive. One fishermen said, "We're going to keep at it until they crack down on us, and hope by that time, we've caught all the fish. It's our only chance this year" (McCay 1984, 22).

*Gamesmanship.* In some respects, the interactions between poachers and law enforcement personnel have the attributes of a game, in which each is trying to outwit the other. By evading the law and eluding law enforcement agents and landowners, poachers become the hunted in addition to being the hunter. This "game playing" appears to be an important motive for many. In their study of poaching in southwest Louisiana, Forsyth and Marckese (1993, 165) quoted one poacher who described his interaction with game wardens as "a game of wits . . . it's like the cat and the mouse." In fact, Forsyth (1993, 218), in discussing the relative difficulties of apprehending experienced versus inexperienced poachers, noted that "[t]he inexperienced poacher is easy to catch owing to the poacher's lack of knowledge regarding both the formal and informal rules of the game." For many of the informants interviewed by Forsyth and Marckese (1993), part of the excitement of poaching is generated by the challenge of not getting caught. As one poacher commented, "I like to eat fresh meat, but it's a real rush knowing that the game wardens are out there trying to hunt you" (Forsyth and Marckese 1993, 167). Another informant said, "I like to do it [poach] because it gets to be exciting sometimes when the game wardens chase you." "I hunt whatever is illegal because what is illegal is good to eat. I outlaw for the challenge of getting caught" (Forsyth and Marckese 1993, 168).

For many poachers, poaching denotes a special interest in closed areas. People motivated to poach because of the game playing aspect of poaching see such things as a "no trespassing" sign as a challenge by which they may test their skills. Boyle (1980) documented the activities of a poacher known as "the Black Ghost" who takes special pride in poaching on the estates of wealthy landowners in southern New York. He commented that "[f]or the Black Ghost the thrill of the chase is not just pursuing game but being pursued by an angry landowner after he has bagged his quarry" Boyle (1980, 48).

In yet another region of the country, Irby, Swenson, and Stewart (1989, 267) noted that game players and accidental poachers killed 30% of the illegally harvested bighorn sheep in the Upper Yellowstone Valley during a study of the effects of poaching on bighorn populations. They defined "game players" as those who kill for the excitement of outwitting law enforcement (Irby, Swenson, and Stewart 1989, 260). Other researchers that have reported violators who have illegally taken wildlife for the excitement of getting away with it or the thrill of outwitting the law include Scialfa (1993) and Wilson (1990).

## Summary, Conclusions, and Research Direction

Poaching has a long history in North America, a history derived, in part, from our English heritage in which hunting the "king's deer" gave rise to poaching by generations of "Robin Hoods" who harvested wild game as much to protest against ruling elites as to

provide meat for the table. At least within the larger public perception, poaching in North America is traditionally believed to involve isolated individuals known as "subsistence" poachers who desire to put food on the table and who perhaps need to supplement their household income by selling a little wild game or an occasional furbearer pelt. Illegal harvest is typically viewed as being motivated by personal consumption, and the impacts on wildlife and fisheries resources are often perceived to be minimal.

Folk crimes are criminal acts that, although they may be fairly widespread, fail to constitute a serious violation of public sentiment, either within the subculture in which they take place or within society at large. As a result, accommodation of folk crimes, such as poaching, by enforcement agencies and the general public alike is frequently the norm. The ambivalence in North American attitudes toward poaching is derived from its mystique as a folk crime which, in the contemporary period, continues to be associated with illegal hunting, fishing, and gathering by economically marginal populations or social isolates who may depend on the unlawful harvest of natural resources to support their families, independence, or traditional ways of life (Benson 1980, 1987; Long 1985).

However, a rigorous and systematic review of the literature leads us to conclude that the social meanings of poaching are more complex than generally perceived. In addition to feeding one's family or supplementing a low income, several motives for poaching were identified that may challenge its social status as folk crime. These additional motives, among others, include poaching for commercial profit or to procure a trophy, the thrill of killing animals to watch them die, the thrill of breaking the law, and poaching as a social protest against government regulation.

Although the poaching literature contains a number of examples of first-rate research, it must be emphasized that the motivational categories contained in the above typology (see Table 1) were distilled from a literature that included a wide range of published material, much of which lacked the systematic, rigorous methodological approach that guides scientific endeavors. As a result, we anticipate that this typology will be modified and extended by future empirical social science research that attempts to validate the existence of these motives, as well as to identify additional ones. However, we present this typology in the belief that it can serve as a useful heuristic tool in further elucidating this poorly understood issue.

The lack of systematic investigations into the reasons why people poach is not surprising, given the elusive and dangerous subjects, and the increasing prevalence of more serious crimes requiring societal attention today. But, the recent increase in poaching activities and the concomitant severity of their impacts suggest that it may be timely to undertake research that examines the poaching problem in a more comprehensive fashion. One major component in developing a research program on poaching is to attempt to answer a rather fundamental question, namely, *Why do people poach?* Answers to this question will require the integrated application of various conceptual frameworks, methodological tools, and analytical techniques from a variety of social science disciplines including sociology, anthropology, and psychology.

This typology, and the literature on which it is based, raise a number of significant research questions that warrant future attention by human dimensions researchers. Are these, in fact, the motives that influence people to poach? Can they be empirically verified in the real world of the poacher? Are there additional motives? To what extent are poachers impelled by a combination of motives, some of which may be operative in different contexts? Are there regional variations in the prevalence of certain motives? Are there variations associated with individual species? There is little systematic data documenting the extent of commercial poaching compared to poaching motivated by noncommercial reasons. How

**Table 1**  
Typology of the motivations for poaching: Frequency of appearance  
of motivational categories by type of literature

	Scientific Refereed ( <i>N</i> = 10)	Professional Nonrefereed ( <i>N</i> = 13)	Theses and Dissertations ( <i>N</i> = 6)	Popular Books and Magazines ( <i>N</i> = 15)
Commercial gain	6	11	3	10
Household consumption	2	9	3	4
Recreational satisfactions	7	3	1	3
Trophy poaching	0	4	1	4
Thrill killing	2	5	2	3
Protection of self and property	0	2	1	1
Poaching as rebellion	5	4	2	3
Poaching as a traditional right	3	4	0	3
Disagreement with specific regulations	5	4	3	1
Gamesmanship	2	2	1	1
Total	<i>n</i> = 32	<i>n</i> = 48	<i>n</i> = 17	<i>n</i> = 33

*Note.* Uppercase *N* represents the total number of individual pieces of literature that contained motivational information within the related literature group (e.g., scientific). Lowercase *n* represents the total number of times that motivational content related to all categories in the typology appeared in one literature group. For example, 10 scientific articles (*N* = 10) referred to poaching motivations. Within these 10 publications, motivational content was identified as occurring in 32 instances (*n* = 32). Of the 32 instances where motivational content surfaced in the 10 scientific articles, 6 referred to commercial motives, 2 referred to household consumption, 7 referred to recreational (satisfaction, and so forth). Any one article may discuss several motive categories, and thus may be represented more than once in the table.

pervasive are the different motives in the poaching population? And, perhaps most importantly, how can a better understanding of why people poach contribute to the development of more effective environmental education, public information, and antipoaching law enforcement programs? For example, will society's definition of poaching as a folk crime, and thus the acceptance of poaching, change when people become aware of the commercial extent of poaching or of poaching as thrill killing? These and other questions are worthy of further research if we hope to improve the effectiveness of programs designed to solve the contemporary poaching problem that exists in North America today.

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