

Deer Harvests in Southeast Alaska

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Introduction

The Sitka black-tailed deer (*Odocoileus hemionus sitchensis*) is indigenous to the islands of southeast Alaska and the mainland to about the latitude of Juneau. For game management purposes, this area is described as Alaska Game Management Units 1-4 (fig. 1): the mainland and Revillagigedo Island is Unit 1 and has 4 subdivisions; Unit 2 is Prince of Wales Island; Unit 3 is the Petersburg-Wrangell area including Kuiu, Kupreanof, Mitkof, Wrangell, Zarembo, Etolin and adjacent islands; and, Unit 4 is Admiralty, Baranof, Chichagof, and Kruzof Islands (the ABC islands). Deer are less abundant on the mainland than the islands, and populations are more stable on the ABC islands. Presently deer are in low to very low numbers everywhere except on the ABC islands. Deer were transplanted to Yakutat, Unit 5, in 1934 [Alaska Game Commission, 1935], where they are currently at low levels.

Sitka black-tailed deer experience population fluctuations of large magnitude [Merriam, 1970]. Others at this conference will discuss the biology of these fluctuations. Whatever the reason, be they long-term of unknown cause or short-term, weather-induced highs and lows, these fluctuations are of singular importance to the harvest of deer taken in Alaska.

Discussion

Most hunters are residents of southeast Alaska. Hunting pressure, as indicated by license sales, has been fairly constant in most areas with an overall increase in Juneau and Ketchikan. The hunting season usually opens August 1 and runs through December 31, with local exceptions. The limit is up to 4 deer, with antlerless deer

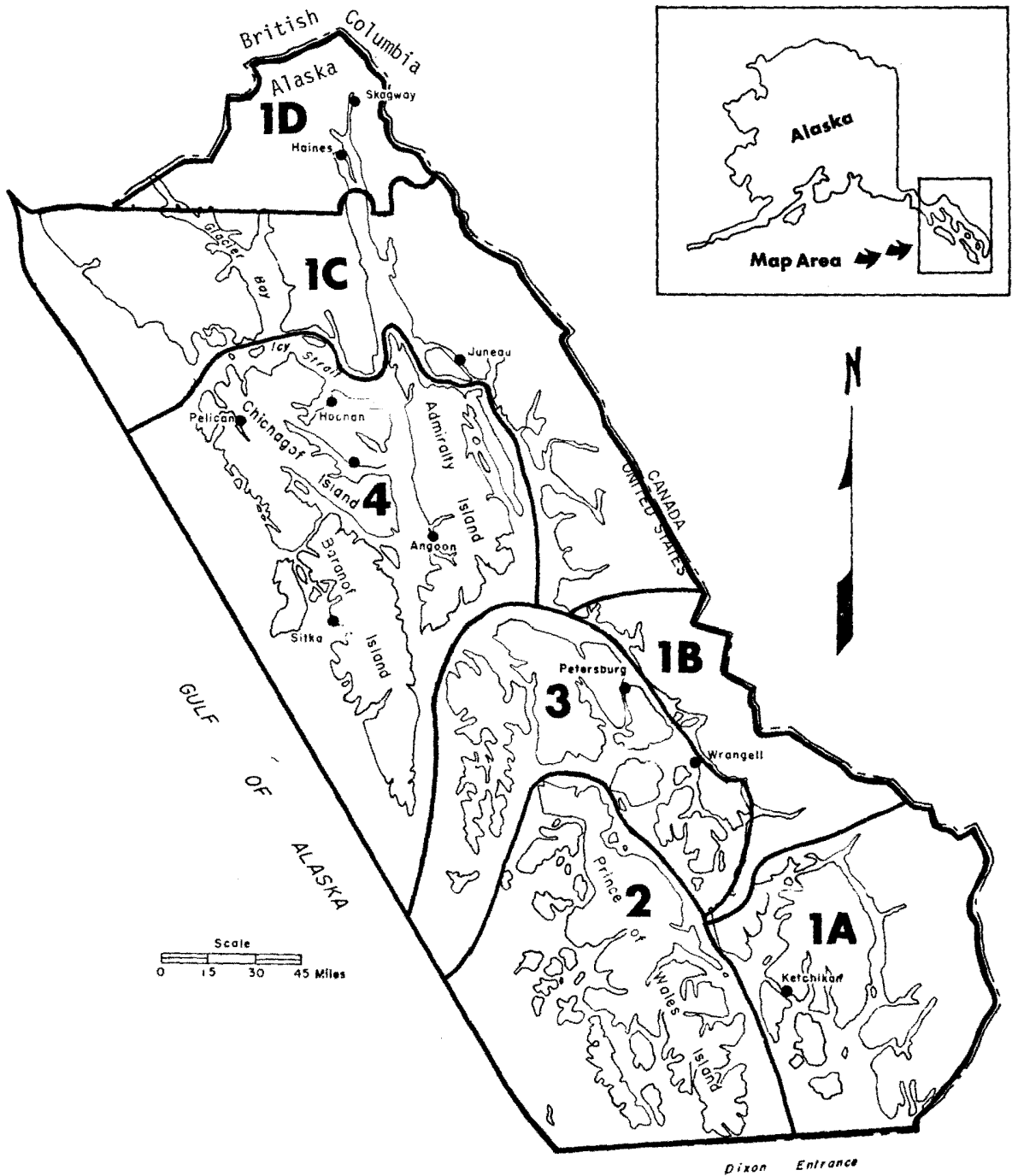


Figure 1. Game management units of southeast Alaska

legal after September 15, again, with local exceptions. Deer may not be taken with the aid of a helicopter in any manner, nor can they be taken from a boat or while they are swimming.

Deer hunting in southeast Alaska can be broken into 3 periods dictated by the deer's seasonal habitat use. The first period is August to about mid-September. Hunting is usually done in the alpine and is restricted to bucks only. This is a high quality, outstanding style of hunting. It can be rather difficult, because of weather and terrain, so accounts for less than 4 percent of the total harvest.

The second period is from about mid-September until snowfall. Deer are on their intermediate range, generally in big timber, just below alpine, after frost kills succulent summer forage. Calls are very effective and hunting is for deer of either sex. Again, this is a very high quality hunt, and it is an effective hunting period for those who know how to hunt them. This period contributes about 10-15 percent of the harvest.

The third period begins after snow has restricted deer to their winter range. Calls are again effective, especially if snow coincides with the rut. There is a great deal of hunter effort because deer are most available, and upwards of 80 percent of the annual harvest is taken during this time. Ethical and sporting considerations are not as high as during earlier portions of the season. It is primarily a meat hunting period.

Sometimes extreme snow makes deer very vulnerable, which poses problems of ethics and sportsmanship. This puts the manager in a "rock or hardplace" position, for the early, heavy snow which contributes to a high hunter kill also may be a precursor of high winter mortality--the combination of which can reduce the deer population. It is ironic that severe winters, when heavy mortality occurs (both natural and hunter kill), are often followed by mild, open winters. During the latter, deer are not visible on beaches nor are they concentrated on winter ranges. The public has often interpreted the apparent lack of deer during the mild years as a result of mismanagement from heavy hunter kill during the previous severe winter.

We might also add a fourth period, the year-long "gunny sack" season, which in remote areas is of some consequence. There are 2 primary motivations for hunting deer: for sport and for meat. In former times or in times of high deer populations, many residents of southeast Alaska looked upon the Sitka blacktail as their primary source of red meat. That was true until about 1968 when the current downward trend became pronounced. It is still possible for many people, especially residents of Sitka, Angoon, Pelican, Kake, Hoonah, Tenakee, and other communities in or near Unit 4, to utilize deer for their meat needs. These people can and do hunt from their back door. This is a matter of choice and/or tradition, not necessity, but the resource can support it, so people do it. But, hunting for Sitka black-tailed deer also affords a very high quality sporting experience. Still-hunting, calling, or stalking in the alpine for these animals can be among the most enjoyable forms of big game hunting. The meat of the Sitka blacktail is of very excellent quality, so meat derived from such a hunt is of secondary, but still high, importance. Residents of towns and areas where deer populations are now low (that is, Petersburg, Wrangell, Ketchikan) still hunt deer, but local deer numbers are not sufficiently high to provide a significant meat source. Consequently, many of these people hunt Unit 4. Such trips, however, are costly and are usually a once-a-year affair. If a man takes 10 days away from work, spends \$500, and shoots 4 60-pound deer, call his motivation for hunting what you want, but in no way can it be a financially-rewarding meat hunt.

Note that we did not call those who hunt for meat "subsistence" hunters. Subsistence hunting is a very complex issue in Alaska today and one subject to much debate.

Here we are referring to people whose use of established deer seasons and bag limits is primarily for the purpose of obtaining venison.

Harvest Measurements

Since statehood we have used 2 techniques in Alaska to measure deer harvests: hunter interviews and harvest tickets. In about 1959, a post-season hunter interview was initiated and conducted annually until 1974. It was based on a sample of about 10 percent of the men licensed to hunt and was done in Ketchikan, Wrangell, Petersburg, Sitka, and Juneau. The Big Game Harvest Ticket system was expanded in 1968 to include deer. A comparison of results from both methods, used concurrently for 3 years, led to a decision to drop the interview in favor of the harvest ticket in 1974. However, an interview sample was taken in Sitka in 1975.

Both systems had their shortcomings and both had their merits. The interview probably gave a more accurate assessment of the total harvest, was more timely, the cost was insignificant, was handled at the local level, and provided a good opportunity for personal contact with hunters; something we have too little of. However, it was biased by virtue of not sampling the smaller communities, and it had the usual biases of an oral interview. After some years of repetition, it became an unpleasant task, which may also have affected the results.

The harvest ticket, which is required of everyone who hunts deer, reaches a much larger sample and should, theoretically, provide more accurate data. It is very costly, provides only limited data on unsuccessful hunts, and since deer harvest data is low on the Division of Game priorities, is very untimely in being analyzed (normally no earlier than August of the following year, if at all). Compliance in returning the harvest ticket has averaged only about 60 percent. Harvest ticket returns have, however, proven very useful in providing hunter effort and harvest figures on specific areas for use in assisting the Forest Service in land-use planning.

The importance of timely, reliable harvest information, regardless of the species involved, is a basic prerequisite for any resource managing agency. This is especially true at this point in time with deer management, as there are so many demands on the limited deer habitat in southeast Alaska. For our own management needs it now appears that the hunter interview, with modification, would be the most useful.

Magnitude of Harvests

The earliest record we found of deer harvests in southeast Alaska was a recent translation of a Russian report [Pierce and Donnelly, in press] that the native people of Sitka sold 2,774 deer (the translation called them goats) to the Russian settlement in Sitka in 1861. During the 1940s and 1950s, as reported by the Alaska Game Commission and U.S. Fish and Wildlife Service (in-service annual reports on file in Alaska Department of Fish and Game headquarters library), the annual harvest ranged from 5,000 to 15,000 deer.

From 1959 to 1968, based on hunter interviews [unpublished Alaska Department of Fish and Game records], there was an annual kill of about 10,000-12,000 deer (fig. 2). Reduced harvests normally follow a severe winter with high natural mortality and hunter kill, but can also occur in a snow-free year when deer do not become vulnerable. A good example of the latter is 1976, while 1969 and 1972 are good examples of the

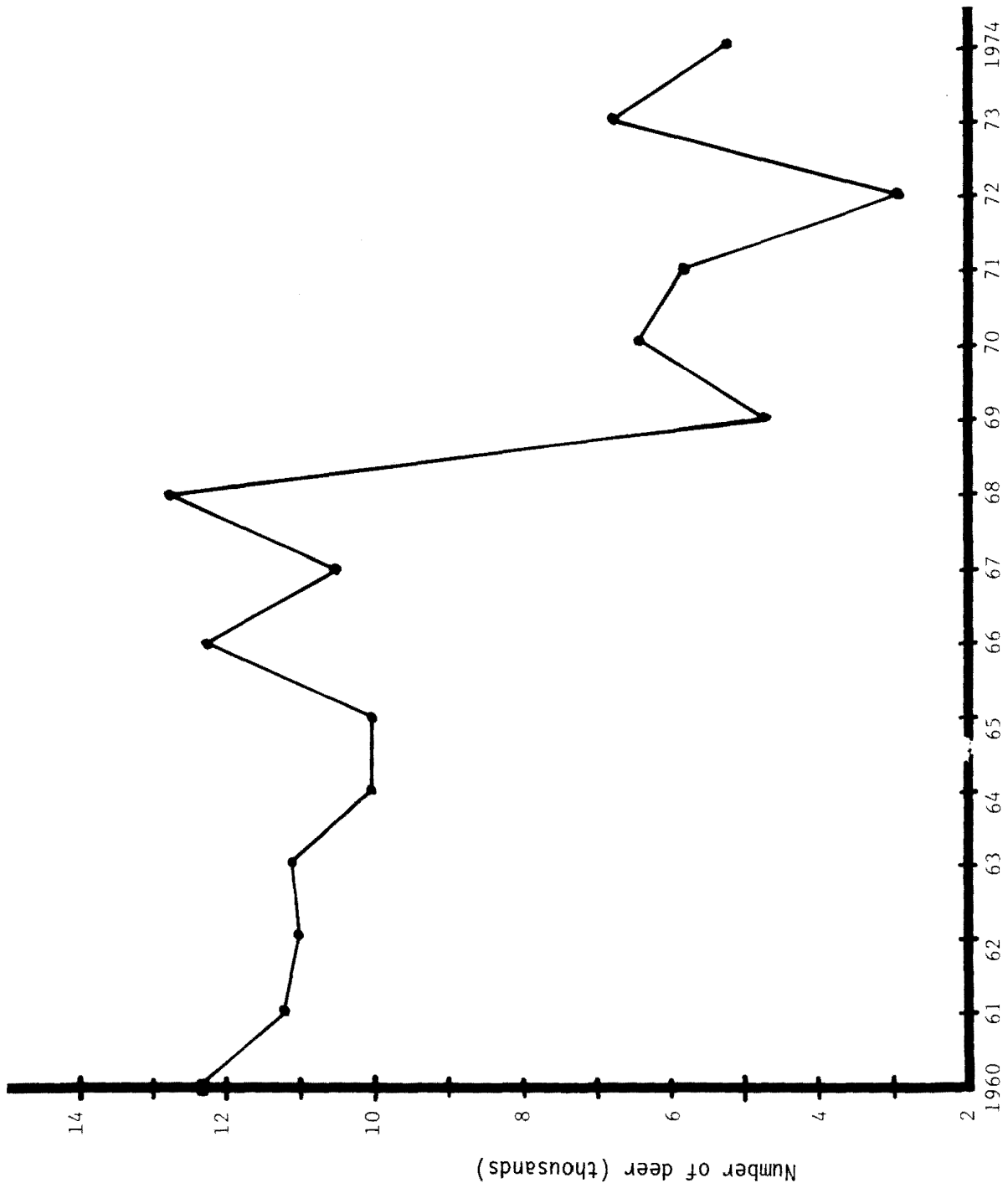


Figure 2. Annual deer harvests estimated from hunter interviews.

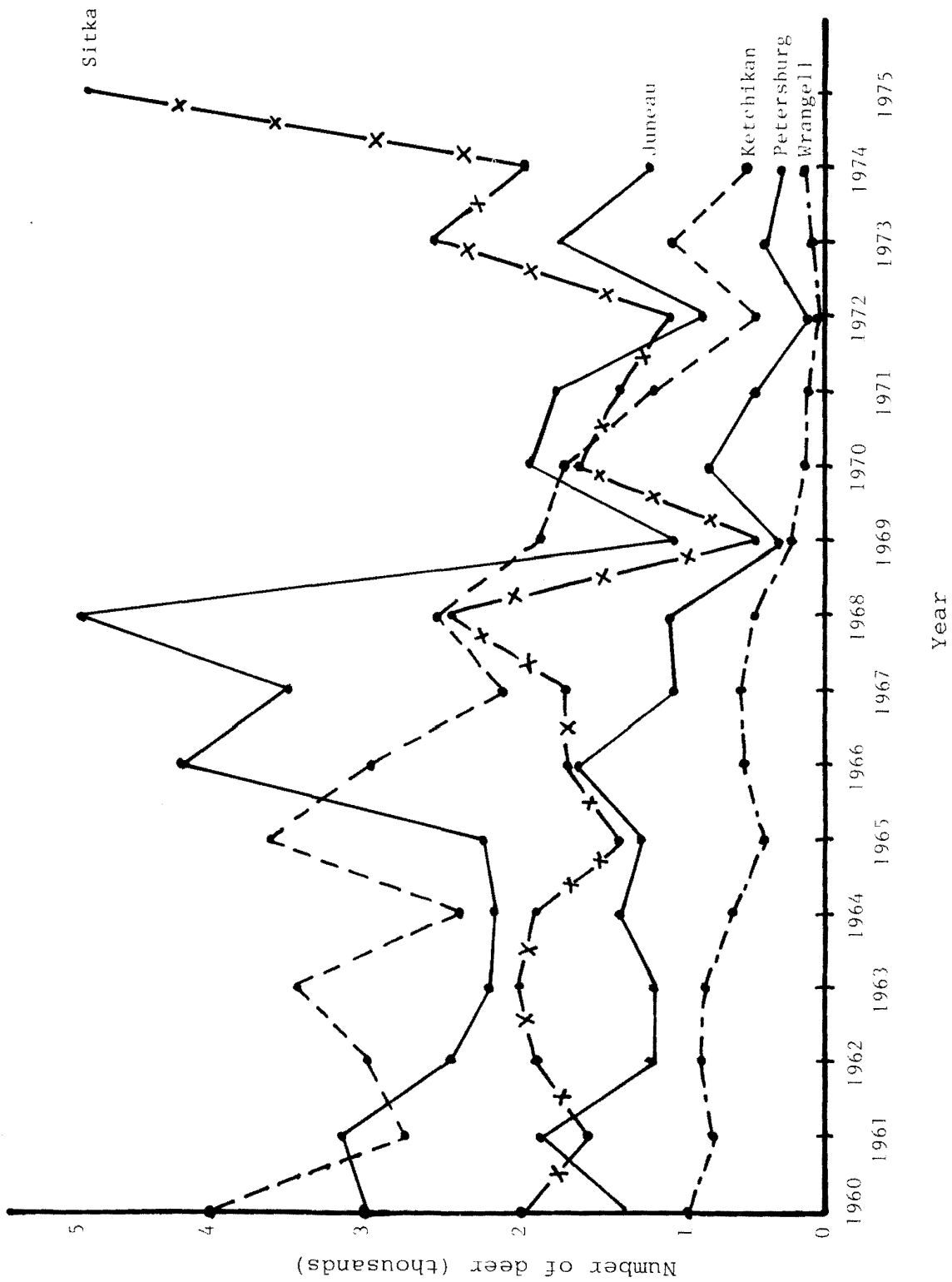


Figure 3. Deer harvest by hunters from major cities, estimated from hunter interviews.

former. Season extensions have also occurred, which account for some of the peaks. As fig. 2 also shows, the current population low in all areas, except Unit 4, has brought the overall harvest down considerably.

Normally about 75 percent of the hunters take at least 1 deer, but the average kill per hunter is around 2 deer. During good or average years hunters expend about 3 days effort per deer taken. Not surprisingly, unsuccessful hunters expend only about 1/3 the effort expended by successful hunters. Bucks have traditionally made up about 60 percent of the harvest. Once again, the current population status and the attendant restrictive regulations have altered these generalities.

By community, residents of Sitka normally harvest about 2,000 deer annually, of which 70 percent come from within a 30-mile radius of the town. Ketchikan hunters took about 3,000+ deer annually prior to 1968, mostly from the immediate Ketchikan area. Currently, they are taking around 500 deer, of which about 20 percent come from Unit 4. Juneau hunters annually take from 2,000-5,000 deer, 60 percent of which come from Admiralty Island. Petersburg hunters, prior to 1968, took about 1,000-2,000 annually, usually within the local area; today they take about 200-500, mostly from southern Admiralty Island. Wrangell hunters took about 600+ annually before 1968, mostly local, but now take about 100, mostly from Admiralty Island. We really don't know much about deer harvests from the outlying communities where contacts with Department personnel are infrequent and compliance with harvest ticket requirements is low.

Weather has the greatest impact on southeast Alaska deer harvests. This is the result of population reduction from winter mortality and/or hunter kill or invariable deer vulnerability. As noted above, without superimposing this over the above harvest figures, these figures can be somewhat misleading.

Outlook

History has shown the Unit 4 deer population to remain high and stable. We should be able to maintain or perhaps increase harvests as human populations increase and more people hunt more remote areas. It is inevitable that the increasing human population and increased mobility will force a curtailment of the present liberal season and bag limit so that fewer people can rely on deer for meat. The kill can remain at present levels; however, it will be shared by more people. Deer populations will undoubtedly recover farther south so that those areas will, again, support a higher harvest. It is doubtful, though, that we will again see a limit of 4 deer and a 5-month season over much of southeast Alaska because of today's feelings of ecological awareness, citizen involvement, antihunting, and the like. Major habitat modifications will undoubtedly result in reduced populations and, therefore, reduced harvests. Then, too, the conflicts of land ownership and classifications, preferential uses by certain groups, and land-use practices, combined, will place additional uncertainties on regulated harvesting by the general public as a deer management tool.

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