SITE SEASONALITY

One of the major issues in archaeozoological research is the determination of the season of site occupation. Three archaeological sites and their contents are described below. Excavations at these sites uncovered a variety of ecofacts that provide information on human subsistence and site seasonality. There is also a description of the various plants and animals that were found by water screening (Fig. 12.25) and information on their seasonal availability. With this background, you should be able to determine the time of year that these sites were occupied and get some idea about human diet.

On the chart provided in Table 12.2 (page 352) list the species of plants and animals found at each site. Then draw a line across the months in the table when that species should be available. The completed chart will provide an overview of species seasonality from which you can infer the times when people were exploiting the resources of the region and living at these sites (see also Fig. 12.2). You may also want to list the names of the species present at each site on the map of the area (Fig. 12.26).

Sites

Harley site: This site is in the foothills of a mountain range and close to a wide expanse of grasslands (Fig. 12.26). Excavation at the site revealed fifteen rock-lined fire hearths. Seven of the hearths were found approximately one foot below the modern ground surface. The other eight hearths were at depths of nearly three feet below the modern ground surface. Several thousand charred nutshells of hickory were found in many of the hearths. Adjacent to the two groups of hearths, the excavators found a variety of faunal remains. These remains included 13,927 bones and 129 skulls with mature antlers of deer, and 12,297 bones of one-to-two-month-old mountain sheep. There were 24,376 bones and 324 skulls with immature (velvet) antlers of antelope. There also were 8,529 bones of adult bison. Finally, the excavators found more than three dozen human coprolites that contained many small seeds of blackberry. The excavators also recovered several

Fig. 12.25 Faunal remains recovered in the water screening.

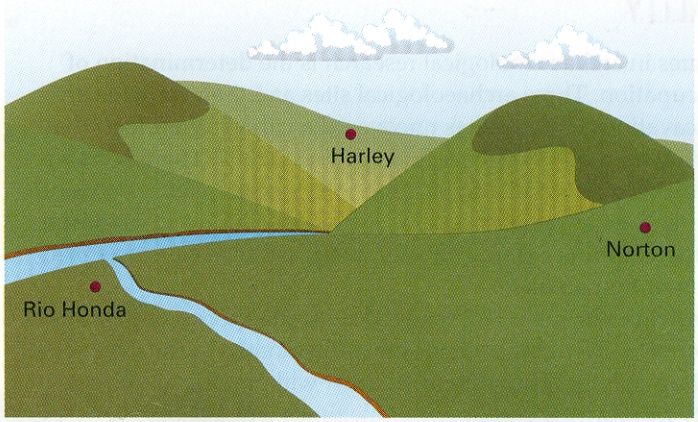

Fig. 12.26 Site location for the three sites in this problem.

chipped stone knives, spear points, and scrapers, along with several hundred flakes of chipped stone.

Rio Honda site: This site is located on relatively level ground at the confluence of two rivers. All of the archaeological remains at this site were found in a single cultural layer about 30 cm (1 ft) thick over an area of approximately one-half acre. Above the cultural layer was a 30-cm (1-ft) thick layer of flood-deposited soils. Below the cultural layer were naturally deposited flood soils of an unknown depth. Within the cultural layer were several thousand flakes of obsidian, some obsidian chipped stone tools, and several bone fishhooks. Mixed among these artifacts were thousands of bones and scales of salmon and 31,239 clamshells. On virtually all the mollusk shells, the final growth rings were identified as being complete to nearly complete, wide, incremental rings. Also in the cultural layer were more than 13,650 bones of swan and several hundred fragments of eggshells of pigeon.

Norton site: This site is located along a stream on a terrace high above the floodplain. The site is huge and covers an area of about 25 acres. Excavations uncovered numerous house floors (some with the stumps of charred wood posts still in the foundations), fire hearths, and storage pits. Among the various artifact types were thousands of pottery sherds representing six different vessel forms and displaying eight different painted designs. Excavators recovered hundreds of chipped stone arrow points, scrapers, knives, and drills. Among the numerous bone tools were awls, fishhooks, harpoons, and needles. Within many of the pit features were thousands of grains of wild rice. Some of the pit features also had hundreds of seeds of grass and the charred nutshell fragments of hickory. Charred hickory nutshell fragments were also found in some of the hearths, along with some bones and scales of trout and remains of flat turtle (an extinct species about which you have no behavioral information). On the periphery of the site was an extensive midden area containing 37,697 bones and 638 skulls with mature antlers of antelope. Excavation of the midden also yielded more than 18,000 bones and 397 skulls with mature antlers of deer. The midden also yielded thousands of jawbones of seven-to-eight-month-old pike and 8,013 bones of duck.

TABLE 12.1 Information on fauna and flora.

	Fish
Salmon:	A migrating fish that schools to spawn in the rivers in late May and early June.
Pike:	The young of this fish are hatched in October.
Trout:	Fish that spawn in rivers during July and August.
	Shellfish
Clam:	A freshwater clam; its shell exhibits seasonally alternating growth rings; wide growth rings represent growth during warm months, a period that begins in May and is completed by mid-September; narrow growth rings represent arrested growth from late September to the end of April.
	Mammal
Deer:	A deer that sheds its antlers by late March; antlers are covered with velvet from mid-July to October; mature antlers last from late October to mid-March.
Mountain sheep:	A mountain sheep with an early March to early April birth season.
Antelope:	An antelope that sheds its antlers in late September; the antlers of this species are covered with velvet from early December to early April; mature antlers last from late April to early September.
Bison:	A prairie bison that migrates through the region in the spring and again in the fall.
	Bird
Duck:	A migratory species available locally in March and November.
Swan:	A migratory species that inhabits the area from June to September.
Pigeon:	A local species that nests and incubates its eggs from May to early June.
	Plant
Grass:	A wild grass that has edible seeds during late August and September.
Hickory:	A tree with nuts that ripen in late September and early October.
Wild rice:	An aquatic grass that produces ripe grain from early August into early September.
Blackberry:	A shrub that produces edible berries in September.

TABLE 12.2 Seasonality chart.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Harley species:												
Rio Honda species:												
Norton species:												

Questions

Using your seasonality chart in Table 12.2 and knowledge from evaluating the site data and other information, describe as accurately as possible the time of year (season, seasons, or months) that each site was occupied. Is there any evidence that indicates how many times people may have occupied a site? If so, identify that evidence and speculate on how many times people may have lived there. What are the problems involved in making estimates of site seasonality? Are there other factors that could make your results less reliable? Please limit your answers to two pages.