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Tlingit Birds: An Annotated List with a Statistical Comparative Analysis

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A list of names for birds in Tlingit (from throughout south-east Alaska) is analysed for their 'descriptive force' and examined to reveal distinctive Tlingit understandings of the non-human world. Measures of correspondence between the categories of birds recognized by the Tlingit, a sample of other folk ornithological inventories, and academic avian taxonomy are applied.

Introduction

Ethno-ornithology is most succinctly defined as the comparative study of the knowledge of birds held by human communities throughout the world. Most often, such studies describe what is more or less common knowledge within an indigenous community – that is, a community deeply rooted in a particular place and intimately engaged with the local natural environment. An ethno-ornithologist may emphasize various aspects of local bird knowledge. A typical foundation is laid by listing native language names for birds with approximate translations of those names with respect to the scientific names in Latin to which they are presumed to correspond most closely. This may require close collaboration of a professional ornithologist (to characterize which species occur), a linguist (to record the local names in a phonemic alphabet), an ethnographer (to record local knowledge of the birds named) and indigenous experts (to point out the birds named, to pronounce their names and to detail in the native language what is known about each bird). Such an inventory could describe dozens of birds (see Table 13.1, page 204), with information about where and when the birds may be found, what they look and sound like, what they eat (and what eats them), accounts of nesting activity, and perhaps mythological and moral accounts of each. Such an ethno-ornithology is *descriptive*. The only analytical component is the correspondence of the local names with modern scientific taxa. A more *analytic* ethno-ornithology would attempt further to compare not only what is known by the local community, but also what is not known and/or disregarded by the community. This may provide a more accurate assessment of local knowledge with respect to the detail recognized by professional ornithologists, and beyond may allow meaningful comparisons of the level of expertise elaborated upon in various communities around the globe. Both approaches are addressed in this chapter.

Who are the Tlingit?

The Tlingit occupy the Pacific north-west coast of North America and the south-east Alaskan Alexander Archipelago, with interior segments of the group, known as Inland Tlingit, inhabiting parts of north-western British Columbia and south-western Yukon Territory. There are approximately 20,000 Tlingits today, with most still living in the region. This chapter focuses on the northern coastal region, from Frederick Sound north to Cape Suckling, encompassing the majority of contemporary speakers of the Tlingit language, of which there are perhaps 500 in total, most over 65 years of age. This region encompasses a significant part of the world's largest temperate rainforest, the Tongass National Forest, dominated by conifers such as Sitka spruce and Western hemlock, glacial forelands and high coastal mountains, and encompasses one of North America's largest protected areas, a World Heritage site: Glacier Bay National Park and

Wind', is a descriptive name for the main village's location in Port Frederick, where birds and humans alike have long found safe harbour from powerful north winds. Xunaa Ḵáawu is one of more than a dozen kwáans or 'dwelling areas' that comprise south-east Alaska, most being centred around traditional 'winter villages', which became permanent towns after the American purchase of Alaska from Russia in 1867. Oral history relates that the Tlingit settled in Xunaa after being displaced from Glacier Bay by an advancing glacier (Marvin, 1987). According to archaeological sources (Ackerman, 1968; Ackerman et al, 1979), human habitation in the area extends back some 9000 to 10,000 years. Xunaa is rendered in contemporary English as 'Hoonah' and today serves as home to approximately 800 residents, mainly Tlingit. Traditionally, Tlingit communities disbursed from winter settlements to fishing camps in summer, and for many this is still the case. Although engaged in modern industries such as fisheries and tourism, these villagers are still reliant on subsistence or 'country' foods, which are produced and exchanged widely, often through traditional regional trade networks. Their diet includes a portfolio of dozens of plants and animals, especially salmon, halibut, deer, seal, and selected marine invertebrates and berries, but also various birds and bird eggs (de Laguna, 1972; Emmons, 1991; Hunn et al, 2003). Although birds play a comparatively minor role in the Tlingit diet, they are important in lean times and shoulder seasons, such as early spring, when top-ranked prey such as salmon are less accessible. Birds are also critical indicator species for these hunter–fisher–gatherers because they signal the presence and movements of fish, changes in weather and other salient ecological phenomena.

In addition, birds feature prominently in Tlingit social structure, which is built around dozens of matrilineal clans arrayed in two ritually opposed avian moieties, the Ravens and the (Bald) Eagles. These exogamous and matrilineal moieties constitute two reciprocating super clans. Children inherit their clan and moiety affiliations from their mothers, but must marry from the opposite moiety. Similarly, when Ravens host a party or 'potlatch', the pre-eminent ritual of north-west coast indigenous peoples, it is the Eagle clans who are guests and vice-versa. Members of Raven clans may feel a particular loyalty to the Raven and likewise for those of Eagle clans, though it is a friendly rivalry. In totemic fashion, bodily adornment, dances, names and titles may reference one's clan or moietal affiliation (see Figure 13.1 and Plate 13). Furthermore, clans, or their subdivisions, known as house groups (because the sub-lineages typically dwelled together), maintain their own sacred designs (crests) and symbolic property, which may also reference birds. For example, Black-legged Kittiwakes, *Rissa tridactyla*, are an important crest of the T'aḵdeintaan clan of the Raven moiety, whose female members often imitate their call on ceremonial occasions to symbolize the clan's historical affiliation with these birds. Once, a flock of Kittiwakes called out to a group of T'aḵdeintaan, temporarily lost at

Source: T. Thornton

Figure 13.1 *Photo of Al (left) and John Martin holding the button blanket symbolizing the story of Raven climbing the bull kelp*

Correlative to their prominence in the social structure is the prominence of birds in myth. The central cycle of myths in the Tlingit corpus revolves around Raven, the trickster-demiurge whose mischievous deeds helped to transform the cosmos and organize its inhabitants (including birds) into their present forms, and whose fortunes and misadventures yield innumerable life lessons on livelihood skills, social responsibility and the consequences of selfishness, greed, deceit and violations of natural law (*ligaas*, or 'against nature'). Raven is neither God nor the devil, but rather a cosmic actor who reshapes existing elements of the universe by accident more than design as he pursues his own narrow interests. He outsmarts other beings, but is himself often outsmarted and suffers the consequences. He embodies the full spectrum of human capacities and foibles, both good and bad. His stories illustrate, above all, the animistic moral-ecological world that Tlingits inhabit in which non-human actors, whether they are Cormorant, 'the Old Woman of the Tides' or Brown Bear, respond to other actors according to a covenant of reciprocity and respect, which when violated can produce personal, social and even cosmic repercussions.

An abbreviated version of the story 'Raven climbs down the bull kelp':

... in Tlingit they refer to the Raven as Geesh Daax Woogoodi Yéil *[Raven that Climbed Down the Bull Kelp]. In the stories about our people near Yakutat, we were one Raven group with the Cohos, L'uknax̲.ádi [clan] and T'ak̲deintaan. We have the same grandfathers. The way we tell about origin about our people is we have similar names on the Raven side that are closely related: the original inhabitants of Southeast Alaska. We had a lot of people that had a difficult time in early years gathering food. Some winters are very bad, especially when our food was limited. When grandpa was telling me the story, there was hardly any food. The people were hovered in the villages and trying to think of ways and trying what kinds of food that they could actually eat [and] put up for the winter. When Raven appeared before our people, that's when the Raven spoke:* Yagéiyi atx̲ á áyá a gookt yeek éen. *That means: 'You folks are sitting at the verge of a great amount of food. Why are you hovered and starving when the table is at your backyard?'... So he told them that he's going to show them the way. He then proceeded to climb down the bull kelp. And he told them that there was a large plug at the bottom underwater that he was going to release so the water would drain out: he was letting them understand the process, how this [tide] works. In those times, our people didn't understand the kinds of food that were edible and the kinds that were poisonous. So he proceeded to have the water drained, and then he proceeded to take inventory with the people... He started to name the different kinds of food: the crab, the black cod, the king crab, the gumboots. They were so numerous, the kinds of food that were just tremendous. He spoke about the sea urchin,* nées', *and the flounders,* dzántí. *Then he told them the kinds of food that were not edible [at] certain times of [the] year. And even today we understand that our people never eat red snapper liver. And he told them that the red snapper and the bullhead had poisonous tentacles. He showed them octopus and how they actually would prepare the food: skin the octopus, and turn the octopus's belly inside out. He showed them many ways to prepare the food ... he didn't take one day or one hour. It took an abundance of time. When this was over, the word spread among our people and our people in the village, even though it was Raven village, we had Eagles among us that also spread the word. So our people are notorious. They knew that when this was all said and done, that's the time for celebration of the feast we call* ku.eex' *[potlatch; literally 'invite']. Today we still have the clan crest on our* at.óow, *our blanket [see Figure 13.1 and Plate 13]*

So it was Raven that taught the Tlingit people not only to survive but to flourish on their intertidal resources. Tlingits sometimes ask rhetorically: 'Where would we be without Raven?'

A descriptive ethno-ornithological sketch of the Tlingit of south-east Alaska

This sketch is based on published dictionaries and consultations with linguists, as well as informal interviews and participant observation by the authors and others over some 20 years of intermittent fieldwork in several Tlingit communities, notably Hoonah (Hunn et al, 2003). Local experts quoted are credited as follows: Jim Austin (JA), Adam Greenwald (AG), Ken Grant (KG), Sam Hanlon (SH), Charles Jack (CJ), Jumbo James (JJ), Herman Kitka Sr. (HK), George Obert (GO), Frank See (FS) and Hilda See (HS). The correspondence of Tlingit terms to scientific Latin is based on inferences from local English vernacular equivalents and accounts of the appearance and behaviour of the birds named. Unresolved ambiguities are discussed in the descriptive accounts. The bird descriptions follow the American Ornithologists' Union (1998) sequence. The inventory of local Linnaean species and seasonal distributions are based on Armstrong (1990). Tlingit understandings may or may not correspond.

Spellings of Tlingit words follow the popular coastal orthography (Dauenhauer and Dauenhauer, 1987), which employs the English alphabet to approximate Tlingit sounds, with some modifications. Uvular 'back of the throat' consonants are represented by underlines under the letters g, k and x. Apostrophes after consonants represent 'pinched' or glottalized sounds, and a complete glottal stop may be signalled by a full stop within a word. Tlingit also has long and short vowels, the former being symbolized by a doubling of the vowel (e.g. aa, as in 'Saab'). The accent over the vowel indicates a high tone.

Birds and their glosses

át kawdliyeeji át, 'bird'/'fowl', may be used in two senses as a general term for grouse (i.e. 'fowl') and to refer to all birds. This suggests that grouse may be seen as prototypical birds. If a bird enters your house it is a sign that something bad will happen (FS).

1 *t'aawák̲*, Canada Goose *Branta canadensis*, is probably onomatopoeic and commonly known as the 'Canadian goose', 'honker' or 'goose'. A large, dark-bellied non-migratory race of Canada Goose *Branta canadensis fulva* nests in south-east Alaska. Two additional subspecies of Canada Goose plus three forms of the smaller Cackling Goose *Branta hutchinsii* pass through on migration. There is no evidence that Tlingit differentiate

prefer to hunt southbound migrants or wintering birds, which, in the past, might be caught in snares or killed when trapped in ice. Today goose may be served as the main dish for Thanksgiving and Christmas feasts. Some places are defined by the presence or migratory appearance of this bird, including the Taku River, from T'aawák K̲'u, 'Where the Canada Geese Flood', a reference to the rich glacial forelands and shallow lagoons near the mouth of the river corridor between the south-east Alaskan coast and Canadian interior, where Canada Geese used to gather in great numbers (Emmons, undated; Nyman and Leer, 1993).

2 ***k̲ín***, Brant *Branta bernicla*, migrant, most common in spring along saltwater shores; rare at other seasons. Nests in tundra to the north and north-west. ***k̲ín k̲wáani*** refers to a 'flock of migrating ducks', though perhaps it refers to a Brant flock or a flock of scoters ('black ducks' in the local vernacular), which are often found in bays and estuaries. In the local vernacular, 'brant' may refer also to the Greater White-fronted Goose *Anser albifrons*, and 'brant' may have either black (Brant) or yellow (Greater White-fronted Goose) feet. Brant are hunted and eaten, and are said to taste much the same as Canada Geese. Their spring appearance is associated with the return of key fish species, such as herring and spring salmon. Snow Geese *Chen caerulescens* are known by their English name and 'stop by' occasionally.

3 ***gúk̲l'***, Swans *Cygnus* spp. The Trumpeter Swan (*C. buccinator*) nests rarely and is uncommon spring and autumn, rare in winter, though it may be found consistently in some areas as indicated in several Tlingit place names. The Tundra Swan *C. columbianus* nests to the north and is a common autumn migrant, uncommon in spring, rare in winter. There is no evidence that Tlingit distinguish between the two, though the Tlingit name might more closely mimic calls of the Trumpeter Swan. Big flocks of migrating swans sometimes stay a week or two. They are hunted for their meat and feathers, both highly regarded. The name 'swan' is a noble name or title among certain Raven clans, such as the T'ak̲deintaan. Swan, brant and goose are all crests of Tlingit Raven clans.

gáaxw, ducks (28 species occur regularly, 15 common, 7 uncommon, 6 rare; 19 species nest), and includes White-winged Scoters and goldeneyes (see below). Bays, coves and shorelines are often inhabited or frequented by several species of ducks.

4 ***Kindachooneit***, Mallard *Anas platyrhynchos*, means 'going straight up', descriptive of how Mallards leap into the air when flushed, in contrast to the 'airliner'-style take-off of larger waterfowl. This duck is common all year, nests on the ground near fresh water and forages in tidal areas and

local hunters. Ducks are hunted with shotguns or sometimes caught when frozen in ice, said to have happened more often in years past when winters were colder than they are today (AG). Some local hunters prefer migratory Mallards, complaining that local nesters taste 'fishy' (CJ).

5 ***atsik'íye***, variously identified as a Canvasback *Aythya valisineria* (uncommon), scaup *Aythya marila*, *A. affinis* (both common) or teal *Anas crecca* (common), *A. discors* (uncommon), *A. cyanoptera* (rare). The local term 'bluebill' most probably refers to the scaup, considered to be an important gamebird. Rafts of hundreds might shelter in bays in stormy weather; 20 to 50 birds might be killed by a single shotgun blast when in such rafts.

6 ***s'elasheesh***, a 'flat-headed duck', identified as a teal or perhaps a scaup (Leer, 1995), but a teal is more likely (see above, ***atsik'íye***).

7 ***s'ús'*** or ***hinyík k̲áawu***, Harlequin Duck *Histrionicus histrionicus*, nests in swift-flowing streams but for the rest of the year is common along rocky saltwater shores. The latter name means that it 'lives in a river' (CJ). Not a favourite target, but may be hunted for their meat and colourful plumage. 'This is a species of duck said always to be seen sitting on rock in rivers. It makes a cry, *sus*', when alarmed ... not with his mouth, but with his wings when he starts to fly up' (Leer, 1995).

8 ***yaa.aa.uné*** or ***aa.aa.uné***, Long-tailed Duck *Clangula hyemalis*, 'oldsquaw' or 'pintail' locally, probably onomatopoeic, though it may be interpreted in Tlingit as 'This is my country'. Common most of the year, preferring inshore marine waters. Scarce during the nesting season, retreating to tundra habitats. Arrive in late October but thin out in mid winter. Feed in deep water where they may be caught by baiting them as they dive, causing them to drown (CJ).

Scoters *Melanitta* sp., Black Scoter *M. nigra* (uncommon), Surf Scoter *M. perspicillata* and White-winged Scoter *M. fusca* (common at all seasons). None nest locally. All are large, mostly black ducks of inshore marine waters: 'great big ones ... like a Mallard [but] black and two times longer ... we ate a lot of those ... the meat is very dark ... in blood duck stew' (FS).

9 ***lak'eech'wú***, Surf Scoter *Melanitta perspicillata*, common in south-east Alaska and frequently observed in the vicinity of Tlingit settlements and fisheries, including at Hoonah. Scoters are associated with the migration and presence of fish, especially Pacific herring, which they follow in great flocks on a 'silver wave' north as various stocks spawn between March and May each spring when they can be observed 'forever splashing', one interpretation of an alternative name ***tlakwch'ísh*** ('forever splashing') (also interpreted as naming the Rhinoceros Auklet; see below). However, 'forever splashing' is probably a folk etymology (though an accurate description of the bird's [illegible]

10 ***wak̲kals'óox̲' gáaxw***, White-winged Scoter *Melanitta fusca*, a *binomial* with the general term for duck, or 'black duck', as the head element. The name literally means 'slanty-eyed duck' (J. Leer, pers comm, 2009).

11 ***hinyik-gáaxu***, ***lingit-gáaxu***, goldeneyes, probably includes both the Common *Bucephala clangula* and Barrow's *Bucephala islandica* Goldeneyes. Both are common except during summer. The name appears to incorporate a variant of ***gáaxw*** 'duck' as the head element, thus 'river duck'. The Common Goldeneye nests rarely while Barrow's nests somewhat more frequently; both use tree cavities.

12 ***hintakx'was'gi***, Bufflehead *Bucephala albeola*. Common, though nearly absent in summer. This might be the species known locally as the 'dipper bottom', descriptive of how they flash their white bellies when they dive (JJ).

13 ***chaax̲*** or ***k̲aax̲***, Red-breasted Merganser *Mergus serrator*. Common in all seasons; nests on the ground near water; otherwise partial to inshore marine waters. Preys on salmon eggs; came to be seen by some Alaskans as 'pests' and were often shot. Some Tlingits believe that they play a constructive role in salmon redds (nests) by culling 'bad' eggs which turn white (and are thus more visible to the birds), leaving the healthy more translucent eggs to hatch successfully (HK). The term has been variously translated as 'hell-diver' (commonly applies to grebes, Podicipedidae – see below – and to the Marbled Murrelet *Brachyramphus marmoratus*, Alcidae – see below) but may have contrasting meanings in different Tlingit communities.

14 ***salxúts*** or ***shalxwáts***, some kind of duck, perhaps the Common Merganser *Mergus merganser*, which is similar to the Red-breasted Merganser and common throughout the year.

Local observers report that the down of 'eider ducks' was valued for quilts. The Common Eider *Somateria mollisima* is the only species of eider that nests in south-eastern Alaska and is the most likely source of eider down. No Tlingit term is known.

The grouse and ptarmigan (six species, of which two are common, two uncommon and two rare; all nest; plus the domestic turkey) are classified precisely, each term naming a category in 1:1 correspondence with a scientific species, with a single exception, the Sooty Grouse, for which male and female are separately named, suggesting the exceptional cultural significance of this family of birds. Huna Tlingit consultants report that local populations of grouse and ptarmigan are much reduced since the introduction of martens *Martes americana* for fur trapping. Traditionally, grouse were an important source of food, especially in autumn and spring when fish are less plentiful. Grouse also figure as important helper species in myths; for example, grouse is said to have bolstered sea lion by putting stones in his belly (grouse also have

15 ***kus'oolgé***, Ruffed Grouse *Bonasa umbellus*, a rare resident. Males strut and 'drum' in spring to attract the female.

16 ***ltaayí***, Spruce Grouse *Falcipennis canadensis*. A rare resident, also known in English as 'fool hen', a reference to its habit of freezing stock still in the presence of danger. This grouse does not 'hoot', but rather rattles its wings and is found further north (JJ).

17 ***x̲'eis'awáa***, Willow Ptarmigan *Lagopus lagopus*. Uncommon but permanent resident, favouring brushy margins of muskeg and tundra (local observers refer to the three species as 'ptarmigan'). They are most often hunted in winter when heavy snows in the mountains drive them down to the vicinity of Tlingit villages. They are readily approached close enough to kill with a club or stick or caught with a long-handled net when they dive into a snow bank. In summer they live on mountaintops. The pure white winter plumage is highly prized, the down used to decorate sea-lion masks for the Blanket Dance. Ptarmigan feet may be rubbed on a newborn's feet so that when they grow up they will run and jump like the nimble ptarmigan (GO).

18 ***shaayadaa x̲'eis'awáayi***, Rock Ptarmigan *Lagopus mutus*. Common all year and favours more barren ground. The name is a binomial with a variant of the name for the Willow Ptarmigan as the head element, literally 'X Willow Ptarmigan', suggesting that the Willow Ptarmigan is thought of as the prototypical species. A third species, the White-tailed Ptarmigan *Lagopus leucurus* is an uncommon permanent resident, favouring more montane conditions. 'Raven said to ptarmigan: "You will be the maker of snow-shoes. You will know how to travel in snow." It was from these birds that Athapascans learned how to make snowshoes, and it was from them that they learned how to put their lacings on' (Swanton, 1909).

19 ***núkt*** and ***káax'***, Sooty Grouse *Dendragapus fuliginosus*, 'blue grouse', male and female, respectively, indicating their cultural significance. Common all year. The name for the male imitates the 'booming' of the males in spring, as they perch high in a dense spruce or hemlock. 'Raven said to grouse: "You are to live in a place where it is wintery, and you will always look out for a place high up so that you can get plenty of breeze." Then he handed the grouse four white pebbles, telling him to swallow them so that they might become his strength [gizzard for digestion]. "You will never starve", he said, "so long as you have these four pebbles"' (Swanton, 1909). Grouse gizzard stones are saved, then woven into the lids of baskets or used in dance rattles. They make a distinctive clinking or ringing sound. The blue-grey feathers and spread tails of the males are favoured for decorating regalia. When the grouse start booming in mid March it is said to be a sign that it is no longer safe to dig clams (because of the 'red tide'). As the season progresses the male grouse gradually descend, even displaying on the ground where they are easily killed [illegible]

then roasted over an open fire. Some of the meat may be smoked and then stored in oil, to be served at potlatches throughout the year. When chicken meat was introduced to south-east Alaska, it was glossed as 'grouse' ***káax'***.

20 ***lugeitl'***, domestic turkey *Meleagris gallopavo*, subfamily Meleagridinae, the only non-native species that is named. Many Tlingits prefer goose to turkey at Thanksgiving.

Loons (Divers): two common species nest locally on lakes: the Red-throated *Gavia stellata* and Common Loon *Gavia immer*. The Pacific Loon *Gavia pacifica* is common outside the nesting season and the Yellow-billed Loon *Gavia adamsii*, is an uncommon winter visitor. Local observers typically refer to 'loons'. When loons call it is said to forecast impending rain. Some consider the loon to be a 'spirit bird' and, along with American Black Oystercatchers *Haematopus bachmani*, they sometimes appear on shamanic paraphernalia, such as rattles. When loons gathered in the autumn the Russian trading ship would come: these ships were thought to be loon spirits (AG). Not eaten, but could be hunted for their feathers.

21 ***kagit***, Common Loon *Gavia immer*. Silver Bay at Sitka, the centre of Russian America, is named for the species.

22 ***yeekagáax̲i***, a second species of loon *Gavia* sp.

Grebes: the Pied-billed *Podilymbus podiceps*, a rare autumn and winter visitor partial to marshy lakes; the Horned *Podiceps auritus*, a common migrant and uncommon winter visitor; the Red-necked *Podiceps grisegena*, common during spring and autumn, uncommon in summer and winter, not known to nest; and the Western *Aechmorphorus occidentalis*, an uncommon visitor, absent in summer. The local term 'hell-diver' might apply to one or another (or all) grebe species, as well as referring to a species of merganser (see above) and the Marbled Murrelet (see below).

Tube-nosed swimmers: Black-footed Albatross *Phoebatria nigripes* is common offshore; the Northern Fulmar *Fulmarus glacialis* and several shearwaters *Puffinus* spp., of which only the Sooty *Puffinus griseus* is common, are rarely seen near shore. Both storm-petrels, the Fork-tailed *Oceanodroma furcata* and Leach's *O. leucorhoa*, are common nesting species, largely absent in winter. Tlingit who have worked offshore on fishing vessels are acquainted with many of these species. PR recognizes albatross, 'whale birds' (i.e. Northern Fulmar), shearwaters and storm-petrels. They are 'outside', not found 'in the inside waters', and thus have no special significance for the Huna Tlingit, except perhaps as signs of distance from their coastal homelands. 'We used to fish up and down the Gulf [of Alaska] and we'd see them [whale birds]

23 ***kichyaat***, Black-footed Albatross *Phoebatria nigripes*, 'long wings'. Though it dwells far offshore, it will, on occasion, come to the outer coast, sometimes following fishing boats.

24 ***kichyaat yádi***, Northern Fulmar *Fulmarus glacialis*, 'child of albatross'. It is possible that this term is extended to include the various closely related shearwater species (but see below) that associate with albatrosses and fulmars at feeding congregations over the continental shelf.

25 ***ts'agwáan***, a likely term for shearwater, is associated with marine mammal haul-outs by Tlingit in rocky offshore islands. Swanton (1909) recorded the term from a Wrangell man, who identified it in a Raven myth as a bird that lives far out at sea but follows Raven around all the time and undermines his reputation. So Raven says to the people: 'You may listen to this TsAgwâ'n if you want to, but you will be sorry for it. He is a man from whom no good comes. Hereafter this TsAgwâ'n will live far out at sea.'

26 ***ganook***, storm-petrels, *Oceanodroma* spp., mythically associated with Hazy Islands, the last outpost of land before the open Pacific, far beyond which the Tlingit typically did not venture.

Cormorants: three species occur, though Brandt's *Phalacrocorax penicillatus* is just a rare summer visitor. The Double-crested *P. auritus* and Pelagic Cormorant *P. pelagicus* both breed locally, the Pelagic more common and coastal. Also known locally as 'Norwegian turkeys'. Their eggs were not collected because they would not cook properly; 'they just stayed watery' (CJ). Forecast bad weather. Halibut hooks might be attached to a carved wooden cormorant 'buoy' that bobbed up and down when a halibut struck.

27 ***yook***, Pelagic Cormorant sometimes colloquially referred to as 'Chinese fishhooks'; well known because they inhabit nearly every rocky reef and waterway navigated. Cormorant got his gabbling call, a result of Raven tricking him into opening his mouth, ostensibly so he could place a louse on his tongue, only to rip his tongue out instead so he would not tell how Raven had deceitfully killed Bear. These birds were hunted occasionally for their meat, skin and feathers; but their meat was generally considered too fishy. The term ***x'adaax'aan*** may name a second cormorant species, most likely the Double-crested or the Pigeon Guillemot (*Cepphus columba*, Alcidae; see below).

Of the herons, egrets, bitterns, and their relatives, the Great Blue Heron *Ardea herodias* is uncommon all year round, typically nesting in colonies in tall deciduous trees.

28 ***lax'***, Great Blue Heron, 'blue heron'. The herons are 'always around'; a few remain at

Diurnal raptors, including Osprey *Pandion haliaetus*, eagles (Bald Eagle *Haliaeetus leucocephalus*, Golden Eagle *Aquila chrysaetos*), hawks *Accipiter* spp., *Buteo* spp., and falcons *Falco* spp.. There is no record of names for the Northern Harrier, Sharp-shinned Hawk *Accipiter striatus*, Red-tailed *Buteo jamaicensis* and Rough-legged B. lagopus Hawks, American Kestrel *F. sparverius* or Merlin *F. columbarius*, though none is rare. It is possible that several of these might be included within ***k'ákw*** (see below).

29 ***ats'áts'***, Osprey, rarely seen around Hoonah, in contrast to Bald Eagles (KG); more common on the mainland and interior areas of Tlingit country.

30 ***ch'áak'***, Bald Eagle. Immature young are distinguished as ***ch'ak'yéis'***; ***gaay*** is an archaic variant. The Bald Eagle is the totemic figure of the Eagle moiety. Eagles are respected for their power and keen sight. Eagle feathers and claws are powerful symbols. An eagle claw attached to a 'talking staff' gave the speaker 'the floor' in councils. Wing feathers used to decorate dance costumes, but an entire eagle (or raven) wing might be employed as a broom to sweep the house. This was no sign of disrespect because it was an honourable use (CJ). KG recalls killing many eagles in his youth to earn cash from the federal government's bounty programme, now a thing of the past. Members of Eagle clans deny killing eagles and often speak to the birds using kinship terms. Eagle clans also derive personal names from characteristics of the Bald Eagle, such as *S'áaxw Shaan* 'Old Hat', a 'high-caste' name or title among the Kaagwaantaan clan which references the mature Bald Eagle's distinguished white head.

31 ***kijook*** or ***gijook***, Golden Eagle, usually considered quite distinct in folk ornithological systems. Golden Eagles are commonly found in Inland Tlingit country, though not around Hoonah (KG), were known to coastal groups through trade trips and travel to the interior, and are occasional visitors to the coast. De Laguna (1972) reports that the Golden Eagle, which became a totemic crest, was originally met on a mountainside above the Ahrnklin River (near Yakutat), and had come from the other (interior) side of the Saint Elias Range to hunt for 'groundhogs' (most likely Arctic Ground Squirrel *Spermophilus parryii*).

Tlingit observers normally speak of Northern Goshawks, Red-tailed Hawks, Peregrine Falcons, and perhaps smaller species such as the Sharp-shinned Hawk and American Kestrel by their English vernacular names. Hawks may be represented in carvings as a face with a hooked beak.

32 ***k'ákw***, Northern Goshawk *Accipiter gentilis*, captures the calls of a goshawk defending its nest. Some say the term refers to a large owl, either the Great Grey Owl *Strix nebulosa* or the Snowy Owl *Bubo scandiacus*,

Rough-legged Hawks, and the Northern Harrier, if not also the American Kestrel. This bird is said to have procured fire while, in another story, a 'mountain hawk' (***shaa k'ákw***) serves as Raven's foil and gets thrown down a mountain in a box (Swanton, 1909).

33 ***shaayáal***, Peregrine Falcon *Falco peregrinus*, is smaller than the Red-tail: 'It's a pretty popular hawk... It lives in the cliffs. That way it could see the area that it was going to hunt: ***shaaya***, means "the face of the mountain" where it typically nests and circles' (GO).

Sandhill Crane (*Grus canadensis*) (Order Gruiformes, Family Gruidae).

34 **dool**, Sandhill Crane *Grus canadensis*, is well known to local observers and is considered a harbinger of spring, with large, noisy flocks passing overhead in late April or early May. This is a signal for people to get out of the house. Migrating cranes rarely stop near Hoonah and other Tlingit bays and estuaries because they favour extensive flats, although they may stop to wait out a storm. Some state, based on Tlingit legend, that hummingbirds migrate northward in spring with the cranes, hitching a ride on their backs.

Shorebirds, including plovers *Charadrius* spp., the Black Oystercatcher *Haematopus bachmani* and a large number of sandpipers, snipe and their relatives: 11 species breed locally (8 common, 3 uncommon); 21 species are regular migrants (7 common, seven uncommon and seven rare); 7 species winter (1 common, 3 uncommon and 3 rare). Shorebirds are often named indiscriminately as 'snipe', or 'sand snipe', for sandpipers. A general term might be ***at'akéenyu.aa*** (literally: 'birds that live along the shore') or ***daak'u*** or ***t'aak'u***, alluding to their mass movement, 'flooding up' over a tide flat (JA).

35 ***sedaadak'éedaa***, perhaps the Semipalmated Plover *Charadrius semipalmatus*, a common nesting species.

36 ***lugán***, Black Oystercatcher, is an important clan crest 'totem.' Huna Tlingit people harvested oystercatcher eggs and steamed them in seaweed over a driftwood fire. The flesh was also eaten, though considered to taste 'fishy'.

37 ***x'at'daayéejayi***, possibly Black Turnstone *Arenaria melanocephala*, common on migration, uncommon in winter.

38 **hinxukadzéedzi**, a small sandpiper, perhaps the Western Sandpiper *Calidris mauri* or Dunlin *Calidris alpina*, though the similar and equally common Least Sandpiper *Calidris minutilla* has the advantage of nesting locally (but see below). CJ reports that when he was a boy they would hunt them with shotguns in the huge migrating flocks on the tide flats. His mother 'used to

to this sandpiper: 'You will be seen only when the warm weather is coming on. Never come near except when warm weather is coming' (Swanton, 1909).

40 ***ayaheeyáa***, 'whimbrel', 'curlew' or 'sandpiper'. No curlew is of regular occurrence, unless the uncommon migratory Whimbrel *Numenius phaeopus* might be intended.

41 ***séitaa***, perhaps Lesser Yellowlegs *Tringa flavipes*.

42 ***séitaa tlein***, a species related to ***séitaa*** but larger, perhaps the Greater Yellowlegs *Tringa melanoleuca*. The binomial name suggests two similar or closely related species.

43 ***éek lukakées'i***, 'snipe' or 'sandpiper', perhaps a dowitcher *Limnodromus* sp.

44 ***lu.áadaa***, Common Snipe *Gallinago gallinago*, common spring, summer and autumn, and uncommon through the winter. CJ recalls that 'We ate a lot of snipe. My dad used to shoot them with a shotgun.' However, by 'snipe' CJ is referring to shorebirds in general.

45 ***ch'eet***, perhaps Red-necked Phalarope *Phalaropus lobatus*, a common migrant, though glossed alternatively as a 'murrelet', a very different species, although both might be encountered in large flocks on inshore marine waters.

Gulls, terns and jaegers (skuas): ten species of gull (five common, one uncommon and four rare); two species of terns (one common, one very rare and local) occur regularly; three species of jaegers occur regularly (two uncommon, one rare). Only the Parasitic Jaeger (*Stercorarius parasiticus*) nests in the region and is regularly observed near shore.

46 ***kéidladi***, Glaucous-winged Gull *Larus glaucescens*. The Huna Tlingit harvested eggs (***k'wát'***) from a large colony on the Marble Islands in what became Glacier Bay National Park and Preserve. The eggs were widely shared in the community and their harvest provided an opportunity for the family to share the experience of gathering a valued food. The community sanctioned a conservative harvest strategy, harvesting eggs from incomplete clutches (Hunn et al, 2003). The closely related Herring Gull *Larus argentatus smithsonianus* breeds sparingly, and occasionally interbreeds, in local Glaucous-winged Gull colonies. Tlingit people apparently do not recognize this distinction. A large nestling of this species is called ***kéidladi yadi***. Mottled brownish immature young are called ***kéidladiyéis'*** or ***kéidladik'í***. A general term for immature gulls is ***lawúxh***, though it is not clear how this term differs in application from the previous terms.

47 ***k'eikw'w***, Black-legged Kittiwake *Rissa tridactyla*, a cliff-nesting gull and an important clan symbol or 'totem'. The Tlingit distinctions for 'seagull',

as a smaller version or relative of the 'seagull', a colonial cliff-nesting species that when disturbed forms swirling masses of birds overhead which call 'gack, gack, gack, gack'. Large colonies are reported for Lituya Bay, origin point for the T'akdeintaan clan which takes this bird as its symbolic avatar.

48 ***kootl'éet'aa*** or ***kool'éit'áa***, probably the Arctic Tern *Sterna paradisaea*, a common nesting species on sandy beaches in Glacier Bay. Might include the rare Aleutian Tern *Sterna aleutica* at Yakutat Bay. These are the only terns to be expected in the region. It may also refer to the Mew Gull *Larus canus*, common all year round, which nests in trees. Bonaparte's Gull *Chroicocephalus philadelphia*, another locally common, small tree-nesting species might be included or perhaps be the primary referent.

49 ***lawúx*** jaeger *Stercorarius* spp.

Alcids, including murres *Uria*, two species; the Pigeon Guillemot *Cepphus columba*; murrelets *Brachyramphus*, two species; *Synthliboramphus antiquus*; auklets *Ptychoramphus aleuticus*, *Cyclorrhynchus psittacula*, *Cerorhinca monocerata*; and puffins *Fratercula*, two species.

50 ***keel***, Common Murre *Uria algae*.

51 ***x'adaax'aan***, Pigeon Guillemot *Cepphus columba*; but this term has also been interpreted as naming a species of cormorant (*Phalacrocorax* sp.; see above).

52 ***cháax*** or ***káax***, 'spirits are crying', is a totemic crest animal. Local accounts of vocalizations and behaviour of this bird suggest that it refers to the Marbled Murrelet *Brachyramphus marmoratus*. Called 'hell-diver' or 'auklet' locally has led some to gloss the Tlingit term as 'grebe' or 'merganser'. Local observers provide rich, if ambiguous, descriptions of this bird. It is said to fly high overhead calling 'tee, tee, tee, tee', which in sunny weather means that rain will come soon (AG); so get your fish in off the drying racks! They are said to nest in trees, to sleep 'up on the mountainside' rather than in the water (CJ). They feed on the 'outer rim of the bay', sometimes at night, their diving leaving a phosphorescent trail of phytoplankton. In the daytime, they leave a trail of bubbles. These various characteristic behaviours are the basis for several Tlingit personal names – for example, *X'ayasún* or *Kik-sún* ('it's bubbling'), *Éedaa- kutxayanaháx* ('phosphorescent stars') and *Shaayataa* ('sleeps on the mountainside'). It is said to 'bounce along', an apt description of murrelets or small auklets taking off with a full crop (CJ, SH). SH's Wooshkeetaan clan name, *Stuwoo.ilgé* ('he thought he was big'), is also derived from a story about this bird: Murelet went out to the Gulf of Alaska to feed, and when it came time to return to the inside waters near Hoonah, it was a clear night with a full moon. Murrelet flew [illegible] messenger. In Sitka, a woman

It is also likely that this Tlingit term is generalized to include, in addition to the iconic endangered Marbled Murrelet, the Kittlitz's Murrelet *Brachyramphus brevirostris*, Ancient Murrelet *Synthliboramphus antiquus* and Cassin's Auklet *Ptychoramphus aleuticus*.

53 ***tlakwch'ísh*** or ***lakwch'ísh***, Rhinoceros Auklet *Cerorhinca monocerata*, often interpreted as 'forever splashing'. An alternative interpretation is that this term is a synonym for the Surf Scoter (see above).

54 ***lugwáach'/lugwát***, Horned Puffin *Fratercula corniculata* or, possibly, Rhinocerous Auklet.

55 ***xík***, Tufted Puffin *Fratercula cirrhata*, is the more common of the two puffin species, although local observers know both, commonly 'puffin'. They were hunted at their outer coastal colonies for their plumage as well as for their colourful beaks, incorporated within dance rattles. The eggs, and occasionally the meat, might be eaten.

Of the pigeons and doves, the exotic Rock Pigeon *Columba livia* is now established in urban centres. The larger native Band-tailed Pigeon *Patagioenas fasciatus* is rare, nesting but leaving in winter. The Mourning Dove *Zenaida macroura* is a rare straggler.

56 ***gus'yá kindachooneidí***, perhaps Rock Dove, though more likely derived from a term for the native Band-tailed Pigeon, but literally glossed as 'horizon mallard'. 'When "doves" arrive in spring it is a sign to halt the clam harvest for fear of red-tide poisoning' (GO). 'Dove' here might refer to the Band-tailed Pigeon or the Mourning Dove or both.

Owls and the Common Nighthawk: ten species of owls occur with some regularity (one common, one uncommon and eight rare), seven of these nest; the Common Nighthawk is a rare autumn visitor. De Laguna (1972) notes that linguists Naish and Story call the 'owl with ear tufts' ***tsísk'w*** or ***dzísk'w*** (Great Horned Owl); the owl 'without ear tufts' ***k'úkw*** (Great Grey or Snowy Owls); and a 'small owl' ***tlénx' shx'uneit*** (perhaps includes several smaller species). This suggests that only three contrasting folk generic owl taxa are regularly named, despite the proliferation of terms listed below.

57 ***tsísk'w*** or ***dzísk'w***, owls in general; prototypically the Great Horned Owl *Bubo virginianus*, an uncommon resident. Owls are imagined to be like 'wise old men', and thought of as a 'spirit', and a 'shaman's bird' (AG). Their appearance near a home may presage a death in the family. The bird itself is not bad, just a messenger. Any owl might be a 'messenger', some bringing good luck, a 'future', acquired by killing the bird and using the skin or feathers in one's dancing regalia. The owl is a lineal crest and [illegible] messenger. In Sitka, a woman

from 'Owl Slide' above town.

58 ***kéigán***, Snowy Owl *Bubo scandiacus*, rare winter visitor, though common in invasion years. Most local observers can recall having seen few of these owls during their lifetimes. Their rarity and unpredictable appearances may contribute to their reputation as a bird of ill omen. If one should land on your house, it means a death in the family.

59 ***k'ishagwát***, perhaps Northern Pygmy-Owl *Glaucidium gnoma*, a tiny forest owl, rare in south-eastern Alaska.

60 ***k̲'úkw*** or ***oondách***, Great Grey Owl *Strix nebulosa*. The term ***k̲'úkw*** may also be glossed 'Snowy Owl' (Boas, 1891). ***Oondách*** is a 'Tlingitization' of the phrase 'Old Dutch' (J. Leer, pers comm, 2009), a gloss for 'boogieman', and may refer to a range of owls beyond the Great Grey. The term ***k'ákw*** is sometimes glossed 'Great Grey Owl' or even 'Snowy Owl', though it more likely refers to the Northern Goshawk (see above).

61 ***tlénx' shx̲'aneit*** or ***x̲éex̲***, perhaps Saw-whet *Aegolius acadicus* or Boreal Owl *Aegolius funereus*. The Saw-whet nests; the Boreal is a rare winter visitor. A small owl with 'tiny ear tufts' known locally as the 'screech owl', because it screeches, might be the Northern Saw-whet Owl – which 'screeches' (compare ***x̲éex̲***) but does not have ear tufts – or the Western Screech-Owl *Megascops kennicottii*, which has ear tufts. This 'screech owl' might also be the Short-eared Owl *Asio flammeus*, which exhibits both defining characteristics and which is the most common and conspicuous local owl, though not small.

62 ***gutguníksh*** and ***jinakaxwájaa***, said to name two species of owls. If they are not synonyms for any previously named they might refer to the Western Screech-Owl or the Short-eared Owl. The former is a rare forest resident. The latter is a common spring and autumn migrant, rare at other seasons, but conspicuous as it often hunts in late afternoon over coastal marshes. Other candidates include the Northern Hawk-Owl *Surnia ulula*, a rare migrant and winter visitor that has nested, and the Barred Owl *Strix varia*, a recent immigrant, having spread west of the Rockies only since the 1960s.

63 ***yaanashgeigí***, Common Nighthawk *Chordeiles minor*, a rare autumn straggler, or perhaps the Short-eared Owl, which hunts in a somewhat similar fashion.

Swifts, hummingbirds and the Belted Kingfisher. Two species of hummingbirds might be seen, the common Rufous *Selasphorus rufus* and the rare Anna's *Calypte anna*, a recent immigrant from California. The Belted Kingfisher is unique.

64 ***dagitgiyáa*** or ***digitgiyáa*** and ***tlak̲wsh'ex̲dak̲ín***, Rufous Hummingbird *Selasphorus rufus*

person will enjoy seeing you. If he sees you once, he will want to see you again' (Swanton, 1909). 'The hummingbird is a spirit... It's just like God comes down with a spirit for you' (CJ).

65 ***tlax̲aneis'***, Belted Kingfisher *Ceryle alcyon*, a common year-round resident, fishing along every shoreline. The name is onomatopoeic. The Belted Kingfisher is a clan totem crest whose behaviour is also said to 'foretell the acquisition of wealth' (de Laguna, 1972).

Woodpeckers: six species occur regularly (one common, four uncommon, one rare). The Red-breasted Sapsucker *Sphyrapicus ruber* is common, but rare in winter; Downy *Picoides pubescens*, Hairy *P. villosus* and American Three-toed Woodpeckers *P. tridactylus* are all uncommon permanent residents. The Northern Flicker *Colaptes auratus* is uncommon, absent in winter. The Black-backed Woodpecker *Picoides arcticus* is a rare spring and autumn visitor.

66 ***gandaadagóogu*** or ***gandaagóogu*** or ***gandgóogu*** describe the species' hallmark behaviour: 'striking the wood' or 'picking around the deadwood'. They may refer, prototypically to the Red-breasted Sapsucker, a common resident, but perhaps refer to all woodpeckers, the flicker excepted (see below).

67 ***kóon***, Northern Flicker *Colaptes auratus*, an unusual woodpecker, often feeding on the ground. Shows striking red-shafted wing and tail feathers, which Tlingits value (de Laguna, 1972). Raven said to Flicker: 'You will be head among the birds [small] in size. You will not be found in all places. You will be very seldom seen' (Swanton, 1909). Elsewhere in Tlingit mythology the bird is associated with the wife of the Controller of the Flood (Swanton, 1909). Several Eagle clans have houses named for this bird and use it as a crest.

Corvids, including jays (two species), the Black-billed Magpie *Pica hudsonica*, Northwestern Crow *Corvus caurinus* and the Common Raven *Corvus corax*: all are common permanent residents. The Gray Jay *Perisoreus canadensis* is rare in autumn and winter. All are named.

68 ***kooyéix*** or ***taatl'eeshdéi***, Gray Jay *Perisoreus canadensis*, 'camp robber'. AG states that they are not found at Hoonah, only the 'blue jay'. The term 'camp robber' might be applied locally to the Black-billed Magpie.

69 ***x̲'éishx'w***, Steller's Jay *Cyanocitta stelleri*, 'blue jay'. The name is onomatopoeic. Steller's Jays are permanent residents, but often stay back in the forest in spring and summer and are only conspicuous about town and along beaches in autumn and winter. The appearance of Steller's Jays about town indicated the end of summer (last of August to middle of September). [illegible] safe to harvest clams. Local

bird', a garden pest and a nuisance for hunters. On the other hand, they may warn people that bears are nearby. Tlingits appreciate their intelligence and fine colours. Raven said to Blue Jay: 'You will have very fine clothes and be a good talker. People will take patterns [probably 'colours'] from your clothes' (Swanton, 1909).

70 ***ts'eigeenéi***, Black-billed Magpie, announces that winter is just around the corner. They come down from the mountains just before the first snowfall. When the magpies arrive you 'better have your larder full for winter' (AG). A totemic animal of the T'akdeintaan clan, Magpies are judged to be 'good birds', 'friendly', not messengers, just mimics. They are also given to thievery, attracted to bright objects as well as food.

71 ***ts'axweil***, Northwestern Crow. Common all year along the beaches; but Tlingit people have little to say about crows, pro or con, at least in comparison with the Raven. AG denies that crows and ravens are 'related'. Raven does not treat crows as close relatives but says to them: 'You will make lots of noise. You will be great talkers' (Swanton, 1909). Thus, when you hear one, you often hear many. Neither crow nor raven eggs were eaten; they were too gamey (CJ).

72 ***yéil***, Common Raven. Members of Raven clans may feel a particular loyalty to the Raven and likewise for those of Eagle clans because Raven, as the great Transformer, is known to all. Raven is 'a very spiritual bird' (CJ). Throughout the northern north-west coast of North America, Raven is credited with releasing the sun, moon and stars from their guardian, in the Tlingit case a figure known as the 'Nobleman at the Head of the Nass River' (in present-day British Columbia) and releasing them into the world, making the cosmos possible. Similarly, Raven's mischievous thieving allowed fresh water to be released to the world. However, in stealing water from the mythic adversary (usually conceptualized as ***ganook***, the storm-petrel) who guarded its spring-fed source on a rocky island off south-east Alaska, Raven was temporarily caught and permanently blackened in the smoke hole through which he made his escape (CJ). Nevertheless, he endured in his purloining mission and proceeded to distribute fresh water across the land, laying down the myriad rivers and streams (literally driblets from his mouth) that now define the Pacific north-west coast. In another episode, Raven also outwits cormorant, tearing out his tongue and depriving him of speech. For this reason, to this day cormorant says only 'wulewulewule' (Boas, 1916). Although this trickster-demiurge carries the same name as the common Raven, he is a singular mythic being.

Common Raven, the bird, is similarly clever and foolish, and also of assistance. Fisherman lost offshore in a fog count on ravens to lead them to shore because they know ravens can't land on water and must return to land. Though a raven wing might be used as a broom to sweep out the house, KG (a member of a Raven [illegible]

'There were ravens flying over the house, and it gave the rest of the family a real good feeling because that's Janet, you know.'

Swallows: six species occur (two common, two uncommon, two rare: all nesting and all leave for the winter).

73 ***séewkooshdaneit***, 'frequent rain'. The arrival of swallows in spring indicates that 'frost is over with'. The name is perhaps a reference to how they may blanket the sky in transit or pursuit of insect prey.

Larks: Horned Lark *Eremophila alpestris*, the only species, is an uncommon migrant of open areas, a rare alpine breeder, absent in winter.

74 ***x'aa kats'ítsgu***, Horned Lark.

Chickadees (two species) and wrens are permanent fixtures of deep forests, typically hunting bugs on bark and foliage, often flocking together after the nesting season.

75 ***kaatoowú***, Chestnut-backed Chickadee *Poecile rufescens*, probably includes the Black-capped Chickadee *P. atricapillus*. Tlingit believe that chickadees announce visitors: 'When you hear them, better start cleaning your house; you're going to have company' (HS). Similar associations are recognized by the Dena'ina Athabaskans (Russell and West, 2003) and the Sahaptins of the Columbia River Plateau (Hunn, 1990).

76 ***woolnáx wooshkaak***, Winter Wren *Troglodytes troglodytes*, announce as they sing in the evening: 'It's time to go to bed now' (HS). The name means, literally, 'goes through a hole' (Swanton, 1909; HK).

The American Dipper is common year round.

77 ***hinyikl'eixí***, American Dipper *Cinclus mexicanus*, suggests its favoured habitat, inside rivers (***hinyik***). It is a 'spirit bird', a 'shaman spirit', a 'spirit watcher' or 'woods doctor' (CJ). It has a similar reputation among Columbia River Plateau Sahaptins (Hunn et al, 1990).

Thrushes include the Mountain Bluebird *Sialia currucoides* and Townsend's Solitaire *Myadestes townsendi*, both rare migrants, though the solitaire is known to breed; three spot-breasted thrushes *Catharus* spp., common or uncommon summer residents; the American Robin *Turdus migratorius* and Varied Thrush *Ixoreus naevius*, both common spring to autumn, rare in winter.

[illegible] probably includes the three spot-breasted

79 ***shoox'***, American Robin, signals spring when they begin to sing and autumn when they disappear. Huna people did eat robin's eggs (CJ). Raven said to Robin: 'You will make the people happy by letting them hear your whistle. You will be a good whistler' (Swanton, 1909). De Laguna (1972) recorded the belief in Yakutat, common among Native American tribes, that Robin scorched his front in ancient times and this is the source of its distinguishing red breast.

80 ***sh'ux'.uwa'***, probably the Varied Thrush.

Waxwings (*Bombycilla*, two species) have become much more common in recent years, evidence of a warming climate, eating crab-apple blossoms in spring (AG); but there is no record of a Tlingit name for them.

Wood warblers: 11 species occur regularly, 10 nest, though none spends the winter.

81 ***asx'aanshàach'i***, a 'yellow warbler'. Raven said to this 'small bird with greenish-yellow plumage', a common summer visitor to coastal south-east Alaska, 'You will always go in flocks. You will always be on the tops of the trees. That is where your food is' (Swanton, 1909). ***jimasasée*** is an interior Tlingit synonym and most likely refers to any of four common, arboreal, predominantly yellow species of wood warblers: Orange-crowned *Vermivora celata*, Yellow *Dendroica petechia*, Townsend's *Dendroica townsendi* and Wilson's *Wilsonia pusilla*.

The Western Tanager is uncommon between spring and autumn. Sparrows (*Spizella, Passerculus, Passerella, Melospiza* and *Zonotrichia,* nine species. in all), Dark-eyed Junco *Junco hyemalis*, Lapland Longspur *Calcarius lapponicus* and the Snow Bunting *Plectrophenax nivalis* often feed on the ground, nesting on the ground or in low bushes or trees.

82 ***tlagoo ts'ats'éeyee***, possibly White-crowned Sparrow *Z. leucophrys*, but this is suspect given that the White-crowned Sparrow does not nest and is common only as a spring migrant. Other sparrows might seem to be more conspicuous – the Song Sparrow *Melospiza melodia*, for example, which is common year round, the only common species in winter. Certain thrushes are called ***ts'ats'ée tlein*** 'big ***ts'ats'ée***', 'big songbird'. ***ts'ítskw*** or ***ts'ats'ée*** or ***ts'agéegi*** are all glosses for 'songbird' (J. Leer, pers comm, 2009), though ***ts'agéegi*** may name a specific kind of bird.

83 ***t'áat'***, Dark-eyed Junco, is common in muskeg, beach fringe and estuary.

The Pine Grosbeak *Pinicola enucleator* and the Pine Siskin *Carduelis pinus*.

84 ***Xunkáa, xunkahaa*** or ***xóow haidlí*** Pine Grosbeak, 'Northwind Bird'

85 ***s'áas'***, Pine Siskin. Swanton (1909) recorded that 'Raven came to the "wild canary" (***s!ās!***), which is found in the Tlingit country all the year round, and said: "You will be had among the very small birds. You are not to live on what human beings eat. Keep away from them."' And so it is rarely seen.

Unidentified birds:

86 ***chée***
87 ***ch'éeni kwlayáat'***
88 ***s'awan***

} Three different species of birds. ***ch'éeni kwlayáat'*** is 'long-ribbon', probably referring to a duck with long neck feathers that are similar to ribbons. (J. Leer, pers comm, 2009)

A comparative analysis of Tlingit ethno-ornithology

Modern ethnobiological study began with a strong relativistic bias. It was axiomatic that the investigator should seek to discover native (i.e. *emic*) conceptual realities, not to presume or impose an external perspective. However, motivated by efforts in linguistics and psychology inspired by the development of cognitive science (Gardner, 1985), ethnographic studies of kinship terminological systems and basic colour terminologies sought to characterize universal patterns and processes that might underlie the superficial diversity apparent in particular systems. Such cross-linguistic comparisons made use of an *etic grid* or meta-language to characterize the referential meanings of local terms (e.g. kin-type notation for kinship terms and the Munsell colour chart employed by Berlin and Kay, 1969, in their classic analysis of basic colour terms). For comparative ethnobiological studies, the etic grid is the Linnaean system of biological classification and nomenclature.

In response to the objection that the Linnaean system is just one among thousands of biodiversity classifications, it is argued that the Linnaean system has the valuable and unique property of representing a collective and systematic global effort to name and classify every phylogenetically significant distinction amongst populations of living organisms. These 'objective discontinuities in nature' represent a grid to which the emic distinctions drawn in every human language may be seen to correspond. The global reach of the Linnaean system allows for indirect comparisons between emic systems in radically disjunctive regions of the world, regions with little or no overlap in terms of local bird species (e.g. the highlands of Papua New Guinea, the highlands of Mexico and south-eastern Alaska). By comparing these disjunctive local systems separately with the Linnaean global etic grid, one may compare degrees and patterns of correspondence of each to the common Linnaean reference point.

The Tlingit bird names listed above include several apparent synonyms, terms that differentiate male and female, adult and immature, as well as superordinate terms for 'bird'/'fowl' and 'duck'. 88 named categories of Tlingit birds

Table 13.1 *SSRR comparisons for 12 indigenous communities of North America and Australasia*

	Folk generic taxa	*Terminal taxa*	*Avian diversity*	*SSRR*
Koyukuk (North America) (Nelson, 1983)	87	87	163 <99>	0.53 <0.88>
Dena'ina (Russell and West, 2003)	109	117	163 <129>	0.67 <0.84>
Tlingit	89	89	236	0.38
Sahaptin (Columbia Basin) (Hunn with Selam, 1990; Hunn, 1991)	73	73	260	0.28
Tohono O'odham (Rea, 1983, 2007)	63	71	249	0.25
San Juan Zapotec (Hunn et al, 2001; Hunn, 2008)	69	103	190	0.36 [0.54]
Tzeltal Mayan (Hunn, 1977)	106	137	200	0.53 [0.685]
Yucatec Mayan (Anderson and Medina Tzuc, 2005)	100	106	178	0.56 [0.77]
Nage (Forth, 2004)	69	69	150	0.46
Kalam (Majnep and Bulmer, 1977)	126	157	204	0.62
Fore (Diamond, 1966)	109	109	120	0.92
Groote Eylandt (Waddy, 1988)	75	75	201	0.37

Note: Angle brackets distinguish alternative baseline calculations of avian diversity, as noted in the text. Square brackets set off alternative SSRR scores based on terminal as opposed to folk generic tallies.

By contrast, ornithologists have recorded 291 species of birds from south-eastern Alaska, the homeland of the Tlingit people (Armstrong, 1990). Have the Tlingit noted only 30 per cent (89/291) of the region's bird species? By contrast, the Fore of Papua New Guinea name 92 per cent of the species recorded during a comprehensive ornithological survey (Diamond, 1966). These percentages are what Hunn (1975) has defined as the Scientific Species Recognition Ratio (SSRR; Table 13.1), which is the number of bird categories recognized by the local residents divided by the number of bird species recorded in the same territory by professional biologists (Hunn, 1999). This ratio will include a certain number of folk categories that are in 1:1 correspondence with a single scientific species, but also instances of *under-differentiation* – where the folk system 'lumps' a group of birds that professional scientists consider to represent two or more species – and *over-differentiation* – where the folk system 'splits' a single scientific species into two or more basic categories. The SSRR will decline when local people are selective in their attention, dismissing species of limited cultural salience with a very general term or ignoring them altogether.

A systematic analysis aimed at discovering what kinds of birds are the focus of Tlingit attention may explain this seemingly low Tlingit avian SSRR. First, the 291 species of birds recorded from south-eastern Alaska vary in abundance. Armstrong ranks each on a four-point scale from C (common), through U (uncommon), R (rare), to A (casual or accidental) (Armstrong, 1990) by season: spring, summer, autumn and winter. 'Common' includes what other guides have

includes the 'rare' and 'very rare' of other authors. Finally, 'casual' refers to species that have occurred in the region at a given season 'no more than a few times'; 'irregular observations are likely over a period of years'; while 'accidental' refers to species recorded 'only a time or two', a bird 'so far from its usual range that subsequent observations are considered unlikely' (based on Isleib and Kessel, 1973). 55 of the 291 species recorded in south-eastern Alaska are rated no higher than 'A' at any season. Thus, 236 species occur with some regularity. Another 63 are rated no better than 'R'. That leaves 173 species that are 'uncommon' or 'common' during at least one season. With respect to these species, the Tlingit SSRR rises from 0.28 for the total inventory, to 0.35 for species of regular occurrence, to 0.40 for those rated common or uncommon. With respect to just those that are 'common', the Tlingit SSRR is an impressive 0.68 versus just 0.19 for species judged uncommon or rare.

Singling out species known to nest in the region, such species are more likely to be noticed by long-time local residents than transients, spring or autumn migrants, or winter visitors, regardless of abundance. There are 161 nesting species recorded for south-eastern Alaska. The Tlingit SSRR with respect to these is 0.41 versus 0.21 for those that do not nest (of the regularly occurring species).

The SSRR may also be calculated by bird family. Three groups have exceptionally high SSRR scores: the owls (SSRR = 0.67), corvids (SSRR = 0.71) and grouse (SSRR = 0.83). At the other extreme (excluding groups with very few local species) are the icterids (e.g. blackbirds) (SSRR = 0.00), flycatchers and swallows (SSRR = 0.06) and wood warblers (SSRR = 0.07). The SSRR for owls may be inflated by the independent status of the several owl terms remaining uncertain. The ratings for the corvids and grouse are somewhat unexpected given that these birds are partial to mountain and forest habitats, while the Tlingit people of south-eastern Alaska are strongly oriented towards the sea. However, corvids are by nature hard to miss, while grouse are a preferred prey of Tlingit hunters.

Some cross-cultural comparisons

Cross-cultural comparisons (see Table 13.1) depend first on consistent procedures for determining such basic facts as the number and denotative scope of the emic categories named in each language and the number of Linnaean species present at each locale, as well as key distributional facts about those species. These determinations are by no means routine or unambiguous. For example, with regard to the tally of Linnaean species present in a particular ethnographic locale, and thus presumed to be available for emic recognition, such local bird lists are 'works in progress' given the powers of flight of birds and the often limited adequacy of local ornithological research. For example, comparing Diamond's Fore data (1966) (109 folk generic terms for 120

SSRR for Diamond's data is no doubt due to the fact that his local bird list was based on a relatively brief field season, while by contrast the Kalam ornithological data represent years of close collaboration between a competent ornithological observer and a life-long resident of the region.

For the Tlingit analysis there is the advantage of a current comprehensive account that identifies every species known to have occurred in south-eastern Alaska – essentially coextensive with traditional Tlingit territories – with abundance rated by season, with notes on nesting and habitat preferences. By comparison, the other two central Alaskan cases report significantly smaller species totals, just 129 species are mentioned for the Dena'ina and 99 for the Koyukuk, while Armstrong (1990) rates 163 species occurring regularly in central Alaska. This larger baseline species total reduces the Dena'ina and Koyukuk SSRRs from 0.84 to 0.67 and 0.88 to 0.53, respectively, still high but closer to the Tlingit figure, which is based on the same distributional criterion and authoritative data base. The remaining differential in favour of the central Alaskan communities is probably due to the greater degree of linguistic acculturation among the Tlingit. This factor is also the best explanation for the low SSRR values for Sahaptin (0.28) and Tohono O'odham (0.25), indigenous communities for whom the native language and traditional subsistence practice have been undermined.

Given that folk biological taxonomies tend to exhibit a 'taxonomic' hierarchy, it is essential to define the taxonomic rank or level at which we are counting. The folk generic rank (according to Berlin, 1992) and the terminal taxonomic level are the most useful for comparative purposes. In the majority of comparative cases, the folk generic categories are terminal – that is, no polytypic generics are on record in such cases. Three cases stand out in this respect, with a significantly higher number of terminal versus generic categories: Zapotec and Tzeltal Mayan in Mexico and Kalam of Papua New Guinea. The ratio of the excess of terminal over generic categories to the total number of folk generics can be calculated as an index of polytypy: 0.49, 0.29 and 0.25, respectively. All of these cases are agricultural communities and all have been the subject of long-term ethnozoological investigations. It is likely that this added dimension of taxonomic elaboration is apparent only with particularly intensive study. If terminal taxa are used to calculate the SSRR, the Zapotec, Tzeltal and Kalam score substantially higher than when compared with respect to folk generic taxa: 0.54 versus 0.36; 0.69 versus 0.53; and 0.77 versus 0.56, respectively.

The socio-cultural and linguistic units being compared must be specified. It is preferable to speak of 'communities' – that is, a group of people who share an immediate habitat, a particular language or dialect, and a common ecological orientation. No comparison should be made of bird names culled from an unabridged dictionary of the English language or of Mandarin Chinese because

relatively compact and the Tlingit historically occupied that homeland in a broadly consistent fashion.

Conclusions

For Tlingit people, birds are not merely sustenance but also icons, indices and symbols of cultural and environmental knowledge, relations and identity. Tlingit names for birds are potently descriptive and often onomatopoeic. Tlingit tradition credits birds with shaping the world as we know it, signalling the presence of food, danger and fortune, as well as providing good company and amusement.

Raven may have organized the birds in nature, but Tlingits have organized them in their own cognitive systems of classification in ways that are comparable with other linguistic communities around the world. Using Hunn's Scientific Species Recognition Ratio (SSRR), the correspondence of the categories of birds recognized by Tlingit peoples with Linnaean categories of bird species known to occur in their home region can be productively assessed. This analysis shows some distinct patterns of differentiation (both over and under the Linnaean standard) of species based on abundance, size, habitat and cultural interest. One Tlingit elder suggested that Tlingit knowledge of birds is most closely correlated with cultural interest, especially 'the ones we eat'. An unpacking of the SSRR suggests that this is true at one level; however, there are important exceptional and signal birds that receive special nomenclatural recognition, although they play no economic role. As with other ethno-ornithological systems, that of the Tlingit is selective, highlighting certain species or families of birds while letting others recede into the conceptual background. How a culture selects a bird for special recognition instructs us as to the particular cultural genius of the people and illustrates a unique local perspective on the natural environment. For example, Raven and Eagle are highly visible as they make their living in the coastal zone, as are the Tlingit, whose social structure is organized in concept and practice in relation to these two avian hunter–gatherer–fishers.

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