Ethno-ornithological Perspectives on the Ch'ol Maya

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Introduction

The Ch'ol Maya in the state of Chiapas, Mexico live in what could be called the "traditional" information age due to their sociocultural relationship with birds developed over millennia. Birds play a vital role in Ch'ol society as messengers and prognosticators, providing valuable information touching upon most aspects of daily life. In this paper we investigate the meanings associated with the actions and calls of various birds among the Ch'ol. This ethno-ornithological approach prioritizes 'bird > human' interactions rather than the more common 'human > bird' (indeed, 'human > animal') anthropocentric relationships that traditionally dominate anthropological studies. Based on fieldwork data, we show how birds function as messengers of future events such as rain and drought, sickness, death, and as indicators of negative or positive things to come. We also describe how birds function in relation to sorcery and their use for medicinal purposes. We argue that birds are intimately involved in the cotidian affairs of many Ch'ol Maya as perpetual sources of divine knowledge. Finally, in the Appendix we present an extensive annotated list of Ch'ol bird names from our own research, as well as names gathered

from many other linguistic sources.

The Ch'ol and their Geophysical Environment

Ch'ol is a member of the western branch of Ch'olan languages, most closely related to Chontal, which is spoken in the lowlands of Tabasco. The major Ch'ol dialects are those of Tumbalá, Tila, and Sabanilla, which are all mutually intelligible. There are around 100,000 speakers of Ch'ol in the state of Chiapas (Hopkins 1995). Table 1 contains a breakdown of Ch'ol speakers by *municipio*.

Tila, approximately 26,000 Ch'ol speakers, 35,000 residents Salto de Agua, 16,000 residents, almost all Ch'ol speakers Tumbalá, 12,000 Ch'ols, 16,000 residents Palenque, 13,000 Ch'ols, 35,000 residents Sabanilla, 8,000 Ch'ols, 12,000 residents Yajalón, 5,000 Ch'ols, 10,000 residents.

Total Ch'ol-speaking population: approximately 100,000

Table 1. 1980 census figures by *municipio* of Ch'ol speakers (after Josserand and Hopkins [2001], based on figures from Valdez and Menéndez [1987])

Ch'ol population centers in the rugged mountainous regions of Chiapas range from Palenque, which sits on the foothills of the Chiapas highlands at only 60 meters above sea level, to Tila at 840 meters, and Tumbalá at 1,500 meters above sea level. The rainy season in Chiapas extends from May to October. In lower lying areas the climate is generally dry and hot outside of the rainy season. The *Selva Lacandona* forest is for the most part hot and humid. The higher elevations of the Sierra Madre mountain range are mildly hot and humid during the summer but experience much colder temperatures during the winter months, dropping

below freezing at times.

Ch'ol-speaking communities occupy a diversity of altitudinal, topographic, and ecological zones and regions that provide a wide range of habitats for birds. These areas encompass everything from rain-forested plains near Palenque to a range of oak, pine-oak, and pine forests in the highlands with cloud forest in the upper elevations. Since swidden, or "slash and burn" agriculture, is widely practiced in Chiapas, a sizeable portion of land is denuded of trees during the years that land is most fertile and used for farming, primarily for corn. When the land becomes non-arable after a number of years of use, thick undergrowth and small saplings begin to grow almost immediately. In addition to swidden areas and milpa fields in various stages of clearing or regrowth, cultural landscapes in the Chiapas Highlands include shade coffee plantations, pasturelands, bare soil, scattered homesteads, and urban areas (Cayuela, Golicher, and Rey-Benayas 2006).

The Birds of Chiapas

The diverse environments found in Chiapas provide habitat for at least 697 bird species, including 193 migratory species (93 winter residents and 97 passage migrants), as well as 22 restricted range species, including 12 endemic to the state, and 10 species shared with adjacent Oaxaca and Guatemala (Vidal n.d.). Species endemic to the Chiapas-Guatemala highlands include Horned Guan (*Oreophasis derbianus*), Bearded Screech-Owl (*Megascops barbarous*), Pink-headed Warbler (*Ergaticus versicolor*), and Black-capped Siskin (*Carduelis atriceps*) (Howell and Webb 1995). Chiapas is also home to 32 bird species of global conservation concern as classified by BirdLife International, including such charismatic species as the Horned Guan, Harpy Eagle (*Harpia harpyja*), Military Macaw (*Ara militaris*), and Respelendant Quetzal (*Pharomachrus mocinno*).

Ethno-ornithological Approach and Methods

In order to gather data on the role of birds in Ch'ol society, in August of 2010 we conducted ethnographic research with the Ch'ol Maya of Chiapas, Mexico. The ethnographic and linguistic data used in this study come from our fieldwork in the town of Tila in the state of Chiapas, Mexico and in the outlying village of Kokija', in Barrio Los Pinos, roughly 10 miles from Tila.

We used several means to elicit information from over thirty informants, including groups of individuals gathered in public places in Tila, as well as hikes in the forests and formal and informal interviews with informants. When conducting interviews, we first asked what birds were most common in each area. We then turned to asking about specific birds that were known in the local area. We made copious use of field guides (including Howell & Webb 1995, Peterson & Chalif 1999, and Edwards 1998) containing illustrations of local birds to confirm suspicions or to jog memories at times. We coupled this with playing sound recordings of birds (commercial recordings including Boesman 2006; Elliot, Stokes and Stokes 1997; Colver, Stokes and Stokes 1997 as well as sound files downloaded from Xeno-Canto.org) in order to confirm identifications through both visual and audio resources. In addition, we spent a sizable portion of the time in the forests and plantations with consultants trying to find and identify birds in the field by sight and by their calls. We recorded names and identifications of birds, as well as stories and ethnographic details about each bird reported by our informants. All data from each consultant were then compared.

The discussion below is a result of an analysis of our data. In addition, we present as an appendix a full annotated list of all our Ch'ol bird data combined with that from earlier published linguistics sources.

Birds and Prognostication

While birds often go carefully unnoticed in the dialy lives of many in Western societies, many Ch'ol Maya are constantly aware of the sounds and movements of birds around them. They pay close attention to the presence or calls of birds, since birds are thought to be endowed with divine-like abilities that enable them to predict future events. Traditional Maya societies have always placed considerable value in prognostication as a means of being prepared for the uncertainties of life. While ritual specialists charged with foretelling events have been a standard fixture in traditional Maya society, their activities always represent a double-edged sword for the people. On the one hand, they can provide helpful knowledge of future occurrences, prescribe appropriate names for new children based on the calendar, bless hunters to have success, petition the rains for farmers, and heal the sick. On the other hand, since they can tap into the spiritual realm, they are also greatly feared by the people and suspected of working both sides, i.e., also being involved in sorcery. This creates a complex field of social interaction between the community and these ritual specialists, alternately reflecting both respect as well as a sense of loathing.

Since birds are also foretellers and prognosticators in Maya societies, they too can be viewed in both a positive and negative light. Some birds such as most owl species are universally disliked by the Ch'ol and other Maya groups since their presence or call can be a negative portent. Other birds, however, such as hummingbirds, have primarily positive messages and roles in Maya society. Like their human counterparts, traditional ritual specialists, some birds are thought to be benficial on one occasion but menacing on another. For instance, the Ch'ol say that the call of the *ti'ap*, or Squirrel Cuckoo (*Piaya cayana*) can be a positive sign of approaching rains, yet at other times it is a negative warning that something bad is about to happen. Thus, many birds can bring various messages depending on which call they use, the position of the bird at the time it was heard, the

manner in which it was observed flying, the type of branch it was sitting on when it sang, the time of day it was seen, or a myriad of other factors. Thus, knowledge and discernment of the meanings associated with each bird is highly valued in Ch'ol society. The following section describes the specific prognosticatory associations with various birds in the Ch'ol area.

Signs of Rain and Drought

During the rainy season from May to October, the ability to properly predict when the rains will fall is crucial to farmers for knowing when to plant and in order to help the crops grow. One of the ways Ch'ol farmers determine the weather is to rely on certain birds to indicate the impending arrival of dry or wet weather. For example, the Ch'ol say that when the *wilis* or *wilix* (*golondrina* in Spanish), a kind of swallow (cf. Whittaker and Warkentin 1965:60) flies out in a large group and circles around, it is a sign that it is going to rain.

The Smoky-brown Woodpecker (*Veniliornis fumigatus*) and the Golden-fronted Woodpecker (*Melanerpes aurifrons*), both (*x*)*ti*' in Ch'ol, are also birds that can prognosticate the rains. They say that when one of them sings loudly "*ti*' *ti*' 'ti'," it is a sign that the rains will soon be arriving.

According to Attanasi (1973:279), the *kel*, or "chachalaca," which he describes as a "wildfowl" and "boat-tailed grackle," is a bird whose "song signals rain." The *kel* is focally the Chachalaca (genus *Ortalis*) based on our observations in the field. Aulie & Aulie (1978) similarly give "*xquel*" [*x-kel*] 1 also as *Ortalis vetula*, and Folmar (1996:27) defines *xkel* as "'chachalaca' (*Penelopina nigra*)" [the Black Chachalaca or Highland Guan].

As noted above, the *ti'ap*, or Squirrel Cuckoo (*Piaya cayana*) also has a prophetic call. In some situations, its song can be a signal of a rain storm. In other cases, however, its song can mean something bad is going

¹ Ch'ol bird names regularly have a variant with an *x*- prefix that usually does not change the meaning.

to happen such as a fall or an injury.

The *ch'urukinkuj*, or Whiskered Screech Owl (*Megascops trichopsis*), is said to give a sign that the weather will clear up ("*componer*") when it sings.

When the *k'inkyu muty*, or Collared Trogon (*Trogon collaris*), sings in February and March, the Ch'ol take this as a sign that "*va a componer el tiempo*," i.e., dry weather is coming.

Thus, by knowing the significance of the songs of each of these birds, the Ch'ol are able to predict the weather and thereby plan accordingly.

Death, Sickness, and Sorcery

Some birds are believed to be either portents of a coming sickness or death, or, in some case, the agent who causes them. In other situations, the call of certain birds directly impacts humans physically. For instance, of the *ajkumtz'u'*, the Lesser Roadrunner (*Geococcyx velox*) (*correcaminos* in Spanish), they say "tienen maña," 'they have a special skill or power'). Therefore, when one sings "ajkumtz'u'ajkumtz'u'," they say the song will make the person who hears it feel lazy ("aflojar a la persona").

Owls throughout Mesoamerican are negative auguries *par excellence*. Among all seven Maya groups with whom we have conducted ethno-ornithological fieldwork, owls are among the most loathed and feared of all birds. With the Ch'ol Maya, the *kuj* (*tecolote* in Spanish), or Mottled Owl (*Ciccaba virgata*) is said to be a "*sabedor* ('knower')." When it cries "*jukuku jukuku*," it is a sign that someone will die. If it circles around a house, it means that within 15 days someone who lives in that house will die.

Folmar (1996:22) lists an unidentified bird (which we tentatively identify as the Barn Owl [*Tyto alba*]) *as xoch'*, which he describes as a "nocturnal bird, white, size of buzzard or heron, nagual 'animal counterpart' of witches, sign of death." The term *xoch'* is a widely diffused

term in Mayan languages for different types of owls, deriving from the proto-Mayan *xooch', 'screech owl' (*Tyto alba*) (Kaufman 2003:613). Folmar's entry is important since it describes the xoch' as a "nagual 'animal counterpart' of witches, sign of death." We have found this same tradition among many other Maya groups, such as the Ch'orti' and the Tz'utujil, where the xoch' is said to be used by sorcerers for evil designs. In other cases, the sorcerer can take the form of a xoch' in order to approach a house where it wishes to do sorcery without being noticed.

Warning Signs

The calls of some birds make people aware of coming dangers. For example, the *pichik* (or *pichik'*)², a type of toucan, cries out to let someone walking know that a snake is on the trail ahead.

As mentioned above, the *ti'ap*, or Squirrel Cuckoo (*Piaya cayana*) can bring a positive message of coming rains, but it can also signal a misfortune is about to happen to the person who heard it.

The *tija'* (variants: *tij 'a'* or *tiy 'a*), an unidentified bird, is said to sing as a signal that something bad will soon happen, such as someone will die, a crime will be committed, or even a snake will be on the road.

The (x)ti', focally the Smoky-brown Woodpecker (*Veniliornis fumigatus*) and the Golden-fronted Woodpecker (*Melanerpes aurifrons*), is a class of birds that is well-known in the Ch'ol area to be a bearer of bad tidings. The (x)ti' is said to give a warning that something bad is about to happen, like an accident, a fall, an approaching snake, a dangerous person is coming to hurt you, or you are going to hurt yourself. They say the belief in this tradition runs deep throughout the population. Several of our consultants recounted personal experiences of the kinds of negative events that happen when the (x)ti' sings. For instance, one consultant related that one day while he was working in the field a (x)ti' sang above him. He

² Attanasi (1973:305) has *pičik* for "small toucan."

immediately became nervous, wondering what the negative portent meant. He did not have to wait long to fine out; a few minutes later he picked up a big rock and there was a 3-foot long snake under it. Such events serve as physical confirmation of these traditional beliefs for many Ch'ol today.

General Signs

Certain birds sing at quite specific times of the day, according to the Ch'ol. One of these is the *makway*, which seems to be the Yellow-billed Cacique (*Amblycercus holosericeus*; cf. Aulie & Aulie 1978:269). They say it sings consistently at different times of the day. Therefore, it is said to be like a clock for the Ch'ol. It sings in the morning, right at noon, and then in the late afternoon around 3:00 p.m. Starting at 3:00, it sings on the hour every hour until nightfall. This is how they know it is time to go home from their work in the field.

The *pich'*, identified by informants as variously the Melodious Blackbird³ (*Dives dives*) or Blue-black Grassquit (*Volatinia jacarina*), are said to sing to signal to a traveler that someone is ahead on the road.

The *cheche* (*loro* in Spanish) is either a parrot or parakeet with blue and sometimes red on it is head. They are considered to be pests by the Ch'ol since they eat the corn found in the *milpa* (cornfield). They too provide a sign, but not for humans. They are said to be well organized in that while the group eats corn from the milpa, there is always one that flies overhead keeping watch. If they see someone coming, it cries out, "*che che che*," which warns the others to leave and they all fly away.

Birds and Medicine

Some birds have specific prohibitions relating to them, the breaking of which could result in a sickness or disease befalling you. For example, the

³ Attanasi (1973:305) gives pič' as "large blackbird," an appropriate description of the Melodious Blackbird.

Ch'ol say that there is a prohibition against killing a *pegre* (a Spanish or Spanicized term), or Masked Tityra (*Tityra semifasciata*). If you shoot one, they say you will get warts on your body as a punishment. Among the Mopan Maya of Belize we have found a different tradition relating to warts and the Masked Tityra. The Mopan say that if you have warts somewhere on your body and you encounter a group of Masked Tityras singing, you should start dancing enthusiastically, which will cause them to get more excited in singing and moving around. This will make the warts on your body disappear (Hull and Fergus 2009:28).

Birds can also have positive physical effects on people in the form of medicine. The hummingbird is well-known throughout Mesoamerica for its connection to love (Braakhuis 2010; Chinchilla Mazariegos 2010). Hummingbirds figure widely into ancient and modern mythology and practice relating to medicine, often specifically love potions. For example, the Ch'ol say that if a male eats the heart of a hummingbird (*tz'unun* or *tz'uñun*) (all varieties), he will be able to get many girlfriends as girls will be falling all over him. This tradition is based on the analogy of the lucky hummingbird that gets to travel from flower to flower every day, drinking of their sweet nectar.

Conclusion

An understanding of the individual messages of each bird forms an important part of the collective knowledge in traditional as well as contemporary Ch'ol society. The worldview of those who believe in the prognosticatory abilities of birds is powerfully influenced by this continuous stream of warnings and information. Birds, therefore, are not passive objects to be acted upon by human beings, but active participants within Ch'ol society. They predict weather patterns that directly affect the daily interactions of the people. Birds also warn of impending dangers, illness, and even death. The also have very practical roles in everyday life such as signaling the time of day to workers in the field. In short, birds can

have a profound effect on the lives of the Ch'ol people as oracles of divine knowledge.

Appendix: An Annotated List of Ch'ol Bird Names

The three main goals of our field research were to gather ethno-ornithological data in the Ch'ol area, to accurately identify as many birds as possible, and to document their names in Ch'ol. The result was a list of over 75 bird names in Ch'ol, most of which we were able to securely identify with various Ch'ol consultants. In order to make these data more useful, we will present them together with data from other sources since to date, no such list of Ch'ol bird names has ever been compiled from most of the major linguistic sources. The following is a large compilation of our field data as well as that of many of the other key sources for Ch'ol bird information, comprising nearly 240 Ch'ol bird names.

As for the sources we used for this compilation, we drew upon many terms from the excellent "Diccionario Ch'ol de Tumbalá, Chiapas, con variaciones dialectales de Tila y Sabanilla" by Aulie & Aulie (1978). Otto Schumann's 1973 "La Lengua Chol, de Tila (Chiapas)" also provided numerous entries. We also used one of the earlier sources for Ch'ol linguistic data, Marcos E. Becerra's 1935 dictionary. This unique source is actually a combination of earlier data gathered by Juan José de la Fuente Albones. In the introduction to the work, Becerra explains:

Procendencia del vocabulario : El presente vocabulario del Chol contiene el cierto material (cerca de 450 voces) que fue recopilado a fines del siglo XVIII (enero 26 del 1789) y por orden del gobierno español, por el cura de Tilá don Juan Josef de la Fuente Albones ... y que fué publicado en 1892 bajo el titulo de « Lenguas indígenas de Centro América » por ... Ricardo Fernandez Guardia. Lo demás (algo mas de 1000 voces) ha sido acopiado por mí en los pueblos de Tumbalá, Tila y Sabanilla...

⁴ Should be "José".

Origin of the vocabulary: The present vocabulary of Chol contains some material (around 450 terms) that was compiled at the end of the XVIII century (January 26, 1789) and by order of the Spanish government, by the Father of Tilá don Juan Josef de la Fuente Albones ... and that was published in 1892 under the title of "Lenguas indígenas de Centro América" by ... Ricardo Fernandez Guardia. The rest (something over 1,000 terms) has been collected by me in the towns of Tumbalá, Tila and Sabanilla...

Three volumes containing this work of Juan José de la Fuente Albones and Marcos E. Becerra was found by Heinrich Berlin in 1940 when he was carrying out research in Palenque, Mexico. Berlin used their data in his research, adding numerous entries of his own to this early list. Matteo (2008) has recently compiled all three of these contributors information into a single, convenient work.

Another important source we used is Hopkins and Josserand's (2008) study on the 1789 vocabulary of Fernández of Tila Ch'ol, which was originally recorded by Juan José de la Fuente Albones (Fernández 1892) cited above. Hopkins and Josserand provide reliable transcription suggestions from Fernández' work and give useful modern equivalents for each term. We also used a number of terms from Kaufman's (2003) "A Preliminary Mayan Etymological Dictionary." A few terms were taken from Karl Sapper's 1897 and 1902 word lists. Some data from "Chol Texts on the Supernatural" by Whittaker and Warkentin (1965) were also valuable for the comparative list below. From Stoll (1884) "Zur ethnographie der republik Guatemala" we found a few terms of interest and have included them. We took one term from Beekman and Beekman's (1953) "Vocabulario Chol."

Finally, we took numerous terms from three sources of Nick Hopkins, Kathryn Josserand, and Ausencio Cruz Guzmán. First, The Mayan Vocabulary Survey designed by Terrence Kaufman was used by Hopkins and Josserand to create a database of 1,439 Ch'ol terms. They are identified in the list below as MVS with the appropriate reference number

as organized by Josserand. Second, data collected by Josserand and Hopkins in 1978 and 1979 with their consultant Ausencio Cruz Guzmán as part of a project supported by the National Endowment for the Humanities (under grant RTR-20643086) and the National Science Foundation. Data from their research is labeled below as MSD. Finally, Hopkins kindly provided us a pre-publication copy of Hopkins, Josserand, and Cruz' recent (2011) compilation of Ch'ol terms entitled "Introduction to the Historical Dictionary of Chol (Mayan)," which provided several terms, details, and transcription clarifications.

All entries without an initial citation are from our field data. Entries from other sources have the appropriate citation at the end of the first line of text following the Ch'ol entry. All outside source data is given in double quotes. Many entries contain more than one set of source data; these show the continuity among sources in some cases and variants in others. Our comments accompany certain entries, be they our data or from other sources. In many cases, Ch'ol bird terms reported in published linguistic sources are still not conclusively identified ornithologically. The search for more precise Ch'ol bird identifications is the subject of ongoing and anticipated future field research. We report all ambiguous and uncertain identifications here in order to document the current state of published knowledge of Ch'ol bird terms as well as to aid in identifying future research needs.

In order to simplify the various transcription styles used by other linguistic sources, we have harmonized all transcriptions to match our own. However, in most cases we include the original next to the suggested transcription⁵ <in angle brackets> or note that there is an orthographical alteration (e.g., "orth. altered"). When scientific names are provided by other linguistic sources without English equivalents, we add the English in square brackets following the scientific designation.

Animal names in Ch'ol and many other Mayan languages often take

Suggested transcriptions are only provisional, especially with some of the early sources where they often fail to mark glottal stops and other sonoric features.

the prefixes *aj*- and *x*- or *ix*- (in Ch'ol, especially the latter two), e.g., *x*-*kel*, (*Ortalis vetula*), the Plain Chachalaca. There is regular variation among bird names that can appear with or without the *x*-, for example. Folmar (1996:18) suggests its inclusion may have semantic value at times: "The prefix *x*-... acts as a collectivizer, turning a term for an individual into a term representing a group of individuals, or an individual conceived as a representative of a group." In our data, certain consultants would give the name of the bird with the *x*- prefix and others would not include it. For the list below, we give the non-"x-" form if one appears in our or others' data. If the only attested form has the *x*- prefix, then it is categorized alphabetically under "x." Related or possibly related forms are often cross-referenced.

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An Annotated List of Ch'ol Bird Names

ajlum "golondrína" ('swallow' or 'sparrow')⁶ (Schumann 1973:56, 75). Hopkins and Josserand note Fernández' (1892) form of <Xajlum>, or xajlum (i.e., x-ajlum) means "sparrow," or "golondrina" in Spanish. Aulie & Aulie (1978:136, 269) have <x'ajlum> for "tijera gris, mosquera tijereta," "ave tijera" ("Tyrannus savanna") [Fork-tailed Flycatcher]. Whittaker and Warkentin (1965:171) have this as a "swallow." Juan José de la Fuente Albones has <shaj-lum> for "Golondrina" ('swallow')

⁶ In Mexico, *golondrina* can sometimes refer to a sparrow and others to a swallow. It is not clear which was intended by Schumann in this case.

(Becerra 1935:20). Fernández' (1892) has <Xajlum> for "golondrina," meaning "sparrow" (Hopkins and Josserand 2008:110). (See *x'ajlum*)

ajkuntz'u' Lesser Roadrunner (*Geococcyx velox*). *Correcaminos* in Spanish. They say they "tienen maña" ('have a special skill or power'). When one sings "ajkuntz'u'ajkuntz'u'," the sound will make you feel tired and lazy ('aflojar'). Aulie and Aulie (1978:28, 267) have it as ajcunts'u' for "correcamino (pájaro)" and "*Geococcyx velox*." Schumann (1973:69, 75) gives it differently as <ajkantz'u> for "tapacamino." Folmar (1996:34) gives <ajk'untz'u> for "roadrunner."

ajtzo' Male turkey. MVS 71 has <ajtzo> for "turkey; guajolote and MSD <ajtzo> for "(male) turkey; pavo (macho)" (Hopkins et al. 2011). Becerra (1935:20) perhaps mistakenly recorded the form as "Aktsó" with a /k/ instead of the /x/ ("j").

ak'ach Turkey. Folmar (1996:27) gives it as "'turkey' (*Meleagris gallopavo*)." Schumann (1975:57) has <ak'ach> as "guajolota" ('turkey hen'). MVS 72 has <ak'ach> for "turkey; guajolote" and as does MSD (Hopkins et al. 2011).

alä ja'al pech <al+ ja'al pech> "'ruddy duck' (Oxyura jamaicensis) or perhaps 'least grebe' (Podiceps dominicus)," "patillo" in Spanish (Folmar 1996:29).

ak'xi' or ak'xij A common black bird, usually a Great-tailed Grackle (*Quiscalus mexicanus*), known in Spanish as *zanate*. Schumann (1973:75) has <akxi'> as "zanate". Aulie & Aulie (1978:136) also have it as <x'ac'xi'> for "pájaro negro" ('black bird'). Becerra (1935:36) has <Ak-shí> for "Zanate" and gives *xunub* (<shunub>) as a synonym. Sapper (1907:450) has <acxi> as a term for "bird" in the Tila dialect.

alä xch'ejkok <al+xch'ejkok> [kind of small woodpecker] (Folmar 1996:20).

alä xch'ejku' <al+xch'ejku'> "small woodpecker" and "acorn woodpecker" (Spanish "carpintero arlequin," "(Melenerpes formicivorus)" [Acorn Woodpecker] (Folmar 1996:14).

alämut "1. pollito. 2. *pájaro chico*" ('1. chick. 2. small bird') (Aulie & Aulie 1978:29).

alä xiye' <*al+ xiye'* > "hawk, kestrel" (Folmar 1996:22).

amuy mut Probably one of the Nightingale-Thrushes (either Orange-billed or Black-headed). It flies low to the ground in the forest. Similar to the *tzinkolon* (Common Bush Tanager [Chlorospingus ophthalmicus] or Black Phoebe [Sayornis nigricans]), according to one consultant. (See *tzinkolon*)

awesi <aguesi> "Zanate chico ('small grackel')," "Se habla del zanate hembra, que es más pequeño" ('Speaking of the female magpie, which is smaller') (Becerra 1935:36).

bikti päm
bicti päm> "tucaneta, tucán verde" ("Aulacorhynchus prasinus") [Emerald Toucanet] (Aulie & Aulie 1978:267) (orth. altered).

bi'ti loro Seed eaters. Aulie & Aulie (1978:32) also have
bi'ti mut> as a term found in the Sabanilla dialect meaning "pajarito" ('little bird'). The term *b'it* means 'small'.

b'uk "bird name: grossbeak?" in the MSD. Hopkins et al. (2011) note that it is the same as the "/xb'uksip, pijlul/". Folmar (1996:35) has <(x)buk sip> as "grosbeak?".

capitan mut "una especie de pájaro con pico largo" (a species of bird with a long beak') Aulie & Aulie (1978:36).

chanwox "golonchaco, cordoniz bolonchaca" ("*Odontophorus guttatus*") [Spotted Wood-Quail] (Aulie & Aulie 1978:267). Hopkins et al. (2011) identify it as the "spotted wood quail; golonchaco." Folmar (1996:34) has <chan wox> listed under "Partidges and Quail."

chächäk alä xch'ejku' <*ch+ch+(k) al+ xch'ejku'*> "carpintero coloradito (ACG) 'Little red woodpecker'" (Folmar 1996:14).

chächäk mut <čä- čäk mut> "redbird" (Attanasi 1973:250) (orth. altered).

chächäk mukuy <čä- čäk muku> "red dove" (Attanasi 1973:250) (orth. altered).

chächäk tz'unun "red-throated hummingbird" in MDS.

chächäk xman k'uk' <*ch+ch+k xman k'uk'*> "slatey-tailed trogon" (Folmar 1996:35).

chächäk xta'jol <ch+ch+k xta'jol> [type of vulture] (Folmar 1996:22). Becerra (1935:36) has <Chuchuk-tiajol> for "Zopilote rojo," ('red vulture') and notes that it is "Semejante al anterior [the Black Vulture], pero de cabeza colorada: Oenops aura" ('Like the earlier one [the Black Vulture], but with a red head: Oenops aura [referring to the Turkey Vulture]'). Likely refers to the Turkey Vulture (Cathartes aura).

chächäk xti' <ch+ch+k xti'> "reddish brown woodpecker (?) or possibly (?) anhinga (Anhinga anhinga)," given as "pajaro ahuizote" in Spanish

(Folmar 1996:20).

chäkmut <čäk-mut> "redbird, edible wildfowl" Attanasi (1973:296). Folmar (1996:27) has <ch+k mut> as "great curassow' (Crax rubra)," "hocofaisfin" in Spanish. Aulie & Aulie (1978:267) give <chäkmut> as both "Crax rubra" for "hocofaisán, faisán americano" or "Oreophasis derbianus" [Horned Guan] for "pollo de pavón, guan cornudo." Whittaker and Warkentin (1965:157) give <chäk mut> for "wild turkey." Schumann (1973:55) has <chökmut> for "faisán" ('pheasant'). Becerra (1935) also recorded the term as <Chuk-mut> for which the Spanish is "Faisán" ('pheasant'), but he noted that "No es el Phasianus, sino otro: Crax globicera" ('It is not the Phasianus; rather a different one: Crax globicera') [an older scientific name for the Great Curassow (Crax rubra)]." Sapper (1897:428) records a bird simple labeled <chacmut>. Later Sapper (1907:452) has <chac mut> for "Hokkohuhn," or 'curassow-bird'.

chäk tzelem <*čäk-tzelem*> "red-headed woodpecker" (Attanasi 1973: 251) (orth. altered).

chäk wut [Transcription as chäk wut per Hopkins et al. (2011)] <Sh-chuk-gut> "Tordito," "Ave mui perjudicial a los sembrados: Dives sumichrastii" ('Very detrimental to crops: Dives sumichrastii" ["sumichrastii" should be sumichrasti, and is a synonym for Dives dives (Melodious Blackbird), see Ridgeway and Friedman (1902)] (Becerra 1935:34).

chäläl Little Tinamou (*Crypturellus soui*). Becerra gave <chulu> for "cordoniz" ('quail') where Juan José de la Fuente Albones had given the term <kuich-chin> in 1789 for the same bird (Becerra 1935:15). Berlin added "chulul=perdriz (sic) chiquito" ('chulul=small partridge') (Matteo

Since Red-headed Woodpeckers are not known to Ch'ol-speaking areas, this must be some other woodpecker species.

2008:11). Hopkins and Josserand (2008:101) give the term for "quail" as <chäläl>. MVS 73 has it for "partridge, quail" and the MSD give this for "Little Tinamou (bird name; Petersen)." Aulie & Aulie (1978:135, 268) have <xchäläl> (orth. altered) for "cordoniz, perdiz chica, tinamú" ("Crypturellus soui") [Little Tinamou], a "pájaro chico con patas verde" ('small bird with green feet'). Aulie & Aulie (1978:135) also list the same name separately for a bird called in Spanish "mancolón," a "pájaro que anda en el suelo" ('bird that goes on the ground'). Whittaker and Warkentin (1965:170) also have <xchäläl> (orth. altered) for "a bird."

chemut <če-mut> "small bird" (Attanasi 1973:252).

cheche Parrot, probably Amazona sp. Known as loro in Spanish. It is very green, with blue or red on the head. They are disliked since they eat the milpa. They say they fly in groups to eat the milpa, but one always flies above to keep watch. When it sees someone coming, it starts crying "che che che" as a warning and they fly away.

chijchip <chijchip> "Vogel" ('bird') (Sapper 1907:450).

chikpäm A kind of parrot or parakeet. Known as *loro* in Spanish. It has yellow, green, and a blue on its head.

chojpitzi Unknown bird identified by one informant as a saltator, described as brownish, with yellow and some blue on tail.

chokmut <č'ok-mut> "young hen" (Attanasi 1973:296).

chokwex "spotted wood quail," in Spanish (Hopkins et al. 2011). Becerra (1935:20) has it as <Chokuesh, tioj-kai> for "Golonchaco" and notes: "Una gallinácea que se domestica por su canto: *Odontophorus guttatus*" ('A gallinaceous that is domesticated by its song: *Odontophorus guttatus*

[Spotted Wood-quail]'). The second part of Becerra's entry <tioj-kai> is the *tyojk'ay* (see *tojk'ay*).

chukchäy <Chuk-chui> "*Martín-pescador*" (Becerra 1935:24). Becerra also notes that it is an "Ave acuática conocida" ('A known aquatic bird').

chujos tya' jol <chujos-tiajol> "Zopilote rey" ('King Vulture'), "Ave de rapiña de hermoso aspecto i regular tamaño: Cathartes papa" ('Raptor bird of beautiful appearance and regular size: Cathartes papa [King Vulture]')" (Becerra 1935:36). The term chujos is otherwise unattested as a bird name in Ch'ol; however, jos is a "buzzard" according to Kaufman (2003:621). Becerra also gives yajaw xtya'jol ("yajau-stiajol") as a synonym.

chut chim <čut čim> "bird" whose whistle is "weee, weee" (Attanasi 1973:255).

chutmut <*čut-mut*> "young rooster" (Attanasi 1973:296).

ch'al "irritated chicken' (?)," "gallina crespa" in Spanish (Folmar 1996:27).

ch'ämpäk' "cerdito, puerquito," ("*Tityra semifasciata*") [Masked Tityra] (Sab.) (Aulie & Aulie 1978:267). (See *k'oyem*)

ch'ej Woodpecker. Known as *pájaro carpintero* in Spanish. Given by one informant as the term used in Tumbalá; elsewhere he said they say *ch'ejk'o'*.

ch'ejk'o' Woodpecker (several kinds), including Black-cheeked Woodpecker (*Melanerpes pucherani*). The name is onomatopoetic for the sound it makes when it is pecking a tree. Schumann (1973:52) also has <ch'ejko'> for "cheje, pájaro carpintero." Folmar (1996:34) <chej kok> as

a type of woodpecker.

ch'ejku' "woodpecker (bird); pájaro carpintero (sin cresta)" in MSD. MVS 63 has it for "woodpecker; pájaro carpintero." Aulie & Aulie (1978:268) have <xch'ejcu'> for "cheje" ("Melanerpes aurifrons") [Golden-fronted Woodecker] Folmar (1996:14) has <(x)ch'ejku' >" for "(Dendrocopus villosus)" and (Picoides villosus)," both meaning "hairy woodpecker."

ch'ejkej A type of game bird. Known as *faisán* in Spanish. Aulie & Aulie (1978) have a similar form, <xch'equejc>, for "*penelopina nigra*" [Highland Guan].

ch'ekek "pajuil (ave)" (Schumann 1973:64). Aulie & Aulie (1978:53) have <ch'equec> for "un pájaro negro" ('a black bird'). However, they have <xch'equejc> with a medial "j" for "pajuil, chachalaca negra" ("Penelopina nigra") [Highland Guan] (Aulie & Aulie 1978:135, 268). Attanasi (1973:258) has <č'ek'ek'> for "mountain turkey."

ch'eku <č'eku> "woodpecker" (Attanasi 1973:258).

ch'e' "A bird which is said to die in great numbers in March when the last norther(s) come, and is replaced by a grey small bird with a short, stubby beak (like a parrot)" (MSD). Aulie & Aulie (1978:135) have it mistyped as <xhc'e'> for "pájaro chico (de color oscuro; se encuentra en los acahuales)" ('small bird [dark color; found in tall grasses']. Folmar (1996:35) has <xch'e'> as a "small dark bird."

ch'ilim <*č'il-im*> "small bird" (Attanasi 1973:258).

ch'ich'ip Northern Nightingale Wren (*Microcerculus philomela*), maybe other wrens too. Folmar (1996:36) has <ch'ipch'ip mut> as a synonym for

<ch'iriri mut>, both said to be 'general terms'.

ch'iriri mut [listed under "general terms" for birds, and given as a synonym for <ch'ipch'ip mut> (Folmar 1996:36).

ch'iton mut "small chicken" (Folmar 1996:27). Juan José de la Fuente Albones (Becerra 1935:20, 29) has <chitón-mut> for "*Gallo*" ('rooster') and "*Pollo*" ('chicken'). Berlin also gives <chitión mut> with the same meaning (Matteo 2008:33).

ch'urukinkuj Whiskered Screech Owl (*Megascops trichopsis*). When it sings it means the weather will clear up ("*componer*").

epechäl ja'al <epechul-jaal> "Garza" ('heron') (Becerra 1935:20). Hopkins et al. (2011) suggest a possible transcription of "'i pech-äl ja'al." Becerra (1935:20) gives <jaa-mut> as a synonym.

ik'bä jol <ik'b+ jol> "'black vulture' (*Coragyps atratus*)," or "zopilote" ('vulture') in Spanish (Folmar 1996:22).

i'ik' bä alä joj may <i'ik' b+al+joj may> "heron that announces northers" (Folmar 1996:29).

i'ik' b+xiye' "pascua florida, (*Leucopternis albicollis* [White Hawk])" (Folmar 1996:22).

is Yellow-winged Tanager (Thraupis abbas).

ixkikil "gavilancillo" ('small hawk') (Schumann 1973:56). (See xkikil)

ix kul, xkul "'limpkin' (*Aramus guarana*) or maybe 'long-billed curlew' (*Numenius americanus*)," and "corréa" in Spanish (Folmar 1996:29).

ixmak'uk' <Isma-kuk> "Quetzal," "Ave preciosa: Pharomucrus mocinno" ('Precious bird: Pharomucrus mocinno [Resplendent Quetzal]') (Becerra 1935:30).

iyajaw xtutpana "small woodrail," "tutupaña chiquita" in Spanish (Folmar 1996:29).

'i'k xta' jol [a kind of vulture] (Folmar 1996:22).

ja'almut < haal-mut> "garza" ('heron') (Berlin, in Matteo 2008:19).

ja'mut <jaa-mut> "*Garza*" ('heron') (Becerra 1935:20). Becerra (1935:20) gives "Epechul-jaal" as a synonym.

ja' pech Heron. Known as *garza* in Spanish. Schumann (1973:81) has <ja'-pech> as "pato de agua" ('water duck') and "garza" ('heron') as <ja'a mut>, similar to Attanasi's (1973:268) *ha'a mut* (orth. altered). Folmar (1996:28) has <ja'al pech> for a large category of "birds that live at the edge of the water."

joj "crow," "cuervo" in Spanish (Hopkins et al. 2011). Juan José de la Fuente Albones (Becerra 1935:16) gives <joj> for "Cuervo." Hopkins et al. (2011) note that the term is obsolete today: "There are currently no crows in the Chol area, and the Spanish term *cuervo* refers to cormorants. The root survives in /joj may/ 'heron'."

joj may "white heron' (*Casmerodius alhus* [Great Egret])" (Folmar 1996:29). Attanasi (1973:270) has *ho'-may* (orth. altered) for "heron" in the "kuktepa dialect." MVS 78 has <joj may> as "heron" as does MSD.

jos "buzzard," or "zopilote" in Spanish (Kaufman 2003:621).

jokol "cotorra" ('parakeet') (Becerra 1935:258). Hopkins et al. (2011) note that it is an obsolete term. Becerra (1935:258) gives <tiuyub> as a synonym. (See *tuyub*)

jukpik Turquoise-browed Motmot (Eumomota superciliosa). It is blue-chested, black on back and has two tails with two points. We also had jujpik from another consultant. Attanasi (1973:271) has it as <huk-pik> for "bird." Aulie & Aulie (1978:269) have something close in <xwucpic>, but they say it is a "guardabarranco, jilguero común" ('nightjar, common finch') in Spanish, but then give the scientific name as "myadestes obscurus," which is the 'oma'o—an impossibility since it is endemic to Hawai'i.

karikoche Band-backed Wren (Campylorhynchus zonatus). Known as caricoche in Spanish. They say they build huge nests in which eight or more females lay their eggs.

karpinteru or *xkarpinteru* (a general term for woodpeckers, from Spanish "*carpintero*") (Folmar 1996:34).

kayu "rooster" (Folmar 1996:27). From the Spanish gallo.

kel Plain Chachalaca (*Ortalis vetula*). Attanasi (1973:279) gives <kel> as "wildfowl" and "boat-tailed grackle" whose "song signals rain" and calls it the "chachalaca." Aulie & Aulie (1978:269) give <xquel> also as "chachalaca olivácea, chachalaca común" ("*Ortalis vetula*") [Plain Chachalaca]. Folmar (1996:27) has "xkel 'chachalaca' (*Penelopina nigra*)" [Highland Guan]. Becerra (1935:16) gives "*Shkel, kel*" for "*Chachalaca*." Berlin recorded the form as <xkäl> instead (Matteo 2008:13). MSD also gives <xkel> for "chachalaca."

kexkex, kejkex Green Jay (Cyanocorax yncas). Described as a green bird with a yellow chest and light blue head. Its eyes are blue and white. Aulie & Aulie (1978:269) have <xquexquex> and <xquejxquex> for "Cyanocorax yncas" [Green Jay], and "queisque, grajo verde," "verde y grande; come plátano; es de tierra fría) ('green and large; it eats bananas; it's from colder areas'). Folmar (1996:34) has <kej kex> as "loro" ('parrot') and <kex k'ex loro> as a type of parrot. (See peazul)

koj <*coj*> "Pavo de Monte" ('wild turkey') (Sapper 1897:428). Possibly same as *kox*?

kojkay Sparrow. Our consultant simply called it a "gordoniz."

kolem joj may "great blue heron' (*Adrea herodius*)," or "siete presa" in Spanish (Folmar 1996:29).

kolem pechäl <kolem-pechul> "Ganso" ("goose") (Becerra 1935:20). Berlin adds to Becerra's term that it is a "pato grande" ('big duck') (Matteo 2008:19).

kolem xiye' "large hawk; gavilán grande" in MVS 75.

kox Crested Guan (*Penelope purpurascens*). Oddly, Schumann (1973:84) gives <kox> as "tecolote" ('owl'). Aulie & Aulie (1978:267) note it is "*penelope purpurascens*" or "pava, cojolita, cojolite" in Spanish. Folmar (1996:27) has <kox> as "'crested guan' (*Penelope pupurascens*)." Becerra (1935:15) has <kosh> for "*cojolita*" ('pheasant') to which he adds, "Es ave gallinácea: *Penelope purpuracens* ('It is a gallinaceous bird: *Penelope purpuracens*" [Crested Guan]. MSD also give it as "Cested Guan; cojolita."

kuj Mottled Owl (Ciccaba virgata). Known as tecolote in Spanish. Name

is onomatopoetic. They say it cries "jukuku jukuku" as a sign that someone will die. If it circles around the house, it means that within 15 days someone will die. They say "es sabedor" ('it's a knower'). Aulie & Aulie (1972:134) gives <xcu> as "lechuza," ("palabra genérica") ('general term'). They also give <xcu|> for "lechuza (grande)" (1978:167). Schumann (1973:101) also has <xcu> for "lechuza." Attanasi (1973:281) also gives it as <ku:> for "owl". Folmar (1996:22) has <ku|> for a "small, brown homed owl, also used as cover term for tecolote 'owl' "goes in the mountains" ACG". Folmar (1996:26) notes a difference between xuj and xkuj, being only distinguished by that fact that the latter "goes in the houses." MSD also has <xku|> for "owl; lechuza." (See xkuj)

kulukab Singing Quail (Dactylortyx thoracicus) based on recorded call, but also perhaps Little Tinamou (Crypturellus soui). Aulie & Aulie (1978:268) give it as <xculucab> for "francolina, gallina de monte, gran tinamú" ("Tinamus major") [Great Tinamou]. Schumann (1973:50) has "ixkulukab" for "cordoniz ('quail')." Becerra (1935:28) gives <kulukab> and the variant <kulkulkat> for "Perdiz" ('quail'), noting "No es la perdiz europea (Cacabis) sino la americana (Gryptuvus)" ('It is not the European partridge (Cacabis) rather the American (Gryptuvus)'). Berlin has <kuluká> for "Perdiz" ('quail') (Matteo 2008:32). MVS 89 has <kulukáb'> for "partridge; perdiz" and MSD give it as "Great Tinamou." Folmar (1996:34) has <xkulukab> as "francolina" in Spanish and lists it under "Partridges and Quail." Folmar (1996:34) also gives <kuluka'> as a "partridge."

kuway "bird name; pájaro negro, pico blanco" in MSD. Folmar (1996:35) has <kuway> as a type of Blackbird. Aulie & Aulie (1978:134, 268) give it as <xkuway> for "pico blanco, piquiamarillo" (*Amblycercus holosericeus*) [Yellow-billed Cacique] (orth. altered).

kwich-chin < kuich-chin> "cordoniz" ('quail'), as given in 1789 Juan

José de la Fuente Albones (Becerra 1935:15). Hopkins and Josserand (2008:101) suggest the transcription of this may be "*x-wachiñ*" for "grackle." (See *wachin*)

k'änk'än xman k'uk' <*k'+nk'+n xman k'uk'*> "citroline trogon" (Folmar 1996:35).

k'inkyu muty Collared Trogon (*Trogon collaris*). They say they sing in February and March "*cuando va a componer el tiempo*," i.e., when dry weather is coming.

k'in tunimu "cuco bobo, cuclillo chiflador" ("*Morococcyx erythropygus*") [Lesser Ground-cuckoo] (Aulie & Aulie 1978:268) (orth. altered).

k'ojk'o' Clay-colored Robin (*Turdus grayi*). One informant called it *golondrína* (usually "swallow") in Spanish. One consultant gave a variant of this as *k'ojk'ot*.

k'ok'ob <k'o-k'ob> "canary, lacandrilla" (Attanasi 1973:286).

k'oyem "cerdito, puerquito" ("*Tityra semifasciata*") [Masked Tityra] (Aulie & Aulie 1978:267) (orth. altered). (See *ch'ämpäk'*)

k'ub "zicua; Moctezuma oropendula?" (Folmar 1996:36). (See k'ubul)

k'ubujl "zacuilla, zanate de oro" ("Casicus melanicterus") [Yellowwinged Cacique] (Aulie & Aulie 1978:267) (orth. altered). MSD has <k'ub'ujl> for "bird name: sacua; sacua: pájaro (negro/café atrás, amarillo el pecho, pico y ojos blancos, orilla de la cola amarilla). Tiene nido de red que cuelga" ('bird [black/brown in the back, yellow chest, white eyes and beak, edge of the tail yellow]. It has a netted nest that hangs'). Folmar (1996:36) has <kubujl> for "zacuilla."

k'ubul Montezuma Oropendula (Psarocolius montezuma). Spanish is zacua. Aulie & Aulie also give it as "zacua gigante" in Spanish and as ("Psarocolius montezuma") (1978:267). Becerra (1935:36) has it as <sh-kubul> and identifies it as "Zacua," "Ave de aspecto i canto agradables, el sacuantotol de los nahoas: Gymnostinops montezumae" ('Bird of agreeable appearance and song, the sacuantotl of the Nahuas: Gymnostinops montezumae [Montezuma Oropendola]'). Becerra (1935:36) gives <sh-kobul> as a variant, though the glottal stop is missing on both forms.

k'uk' Resplendent Quetzal (*Pharomachrus mocinno*). Becerra (1935:30) gives *<shkuk>* for "*Quetzal*," "Ave preciosa: *Pharomucrus mocinno*" [Resplendent Quetzal].

k'uk Mountain Trogon (*Trogon mexicanus*). Folmar (1996:35) has <k'uk'> as a class name for Trogons.

k'uyan <k'uy-an> "bird, pájaro cantador" (Attanasi 1973:286).

läp'om or *lä'p'om* A kind of hawk. Known as *gavilán* in Spanish. In our data the /p/ is glottalized, as it is in Attanasi (1973:288), *läp'on* (orth. altered), given as "mountain hawk." Schumann (1973:56), on the other hand, has it without glottalization as <lö'pom> and <lö'pojm> for "gavilancillo". Later Schumann (1973:86) also changes the final vowel, <lö'pom>, showing a /ə/ instead of /o/.

liklik liklik> "parece águila" ('looks like an eagle') (Kaufman 2003:607). Becerra (1935:20) has <liklek> for "Gavilán" ('hawk'). Folmar (1996:22) has <xlilik> for "white-collared kestrel' (Falco sparverius ?) [American Kestrel ?]." Folmar (1996:35) has <xlilik> as "hawk." Liklik is Bat Falcon (Falco rufigularis) among the Q'eqchi' and Mopan of Belize.

makway Possibly Yellow-billed Cacique (*Amblycercus holosericeus*; cf. Aulie & Aulie 1978:269). One informant described it as black with a little yellow and white. They say it sings consistently at different times of the day. For example, it sings in the morning, then right at noon, and then in the late afternoon. Starting at 3:00 pm, it sings on the hour every hour. This is how they know it is time to go home from the milpa.

mak'uk' Citreoline Trogon (*Trogon citreolus*). Unclear if it is distinct from mank'uk', the Resplendent Quetzal (*Pharomachrus mocinno*). Becerra (1935:30) has <Isma-kuk> [ix-mak'uk'] for "Quetzal." However, Folmar (1996:35) has <mank'uk'> listed under Trogons.

mank'uk' <man-kuk> "Quetzal," "Ave preciosa: Pharomucrus mocinno [Resplendent Quetzal]" (Becerra 1935:30). Aulie & Aulie (1978:268) also have <manc'uc'> for "quetzal," "Pharomachrus mocinno" [Resplendent Quetzal]." Sapper (1897:428) has <man k'uk> for "Quetzal" and later (1907:452) records it as <x man k'uk>. The term k'uk' by itself is 'Quetzal', and we do not know if there is any difference among k'uk', mank'uk', and xmank'uk', though we suspect there is none. Kaufman (2003:614) also notes the variation that appears with this term, transcribing it as "x-(man=)k'uk'." Folmar (1996:35) has <mank'uk'> listed under Trogons.

mate' mut, matye' mut Small birds in general. Hopkins and Josserand (2008:104) cite Fernández' entry of <Matielmut> (which they transcribe as ma-tye'-el muty) for "pájaro" in 18th-century Ch'ol and note that today it refers to a "woods bird." Aulie & Aulie (1978:78) have <matemut> as "un pájaro del monte de cualquier especie" ('a forest bird of any species'). Schumann (1973:87) also has <ma-te' mut> for "pájaro" ('bird'). Schumann (1973:64) has <mate' mut> for "pájaro hembra" ('female bird'). In Ch'ol, mate' meaning 'forest'.

mato' mut "pájaro" (Schumann 1973:64). This is perhaps a typing error for *mate' mut* since Schumann has <mat-te' mut> as "pájaro" later in the same text (1975:87).

mo'och "especie de guaco (pájaro)" ('species of guaco [bird]') (Aulie & Aulie 1978:81).

mukuy White-tipped Dove (*Leptotila verreauxi*), and several other doves. Attanasi (1973:295) gives it as "dove." Schumann (1973:64) has it for "paloma" ('dove'). Aulie & Aulie (1978:269) have <xmukuy> for "paloma alas blancas, paloma real" ('white-winged dove, regal dove') ("*Zenaida asiatica*") [White-winged Dove]. Whittaker and Warkentin (1965:170) give <xmukuy> as "mourning dove." MSD has <xmukuy> for "dove (bird name); paloma."

mut, muty General term for bird.

mut "chicken" or "bird" Attanasi (1973:296). Folmar (1996:14) also has it for "chicken." Kaufman similarly has <mut> for "gallina" ('chicken') (2003:619). Sapper (1907:450) has "a mut" and "mut" for "Vogel" ('bird').

nako, nakom "bird" Attanasi (1973:297). Aulie & Aulie (1978:137) have <xñacom> for "perdiz, (pájaro de tierra caliente, de colore verde, es comestible" ('quail, [bird of hot areas, green in color, edbile']). Folmar (1996:35) gives <xnakom> as a type of dove.

na'mut "gallina 'hen', (also 'female bird')" (Folmar 1996:27). Attanasi also has <na-mut> for "hen" (1973:296). Schumann (1973:88) has it as <ña' mut> for "gallina" ('hen'). Hopkins and Josserand note that Fernández (1892) has "Namut", which they give as <ña' muty> for modern

Ch'ol, meaning "hen." MVS 61, 18 gives this for "female bird, hen; hembra de pájaro, gallina." Beekan and Beekman (1953:13) have it as <ña'al mut>

nänäte "small bird" (Attanasi 1973:298) (orth. altered).

ñakow, nakaw Slaty-breasted Tinamou (*Crypturellus boucardi*). Aulie & Aulie (1978:269) have it as <xñacow> for "tinamú canelo, perdiz canela," "*Crypturellus cinnamomeus*" [Thicket Tinamou or Rufescent Tinamou] and give the Spanish names as "tinamú canelo, perdiz canela." Attanasi (1973:297) gives <nako> and <nakom> as "bird", and may be related (?). MSD has <nakow> for "Thicket Tinamou: perdiz." Whittaker and Warkentin (1965:170) have this for "a partridge."

 $\tilde{n}a'ak'ach$ Female Turkey. Known as pava in Spanish. The morpheme $\tilde{n}a'$, 'female, mother', is a dialectal form of na'. It is possible to just say ak'ach also. MSD has it for "female turkey; pava (hembra)."

ñoñochte' ("Xiphocolaptes promeropirhynchus") and "trepatroncos gigante" [Strong-billed Woodcreeper] (Aulie & Aulie 1978:267).

pajpak "bird name; pájaro nocturno; llega de noche en los playones a comer renacuacho. Gris, pico pacho (como pato), cola como garza. Grita "paj paj paj..." ('nocturnal bird; it arrives at night at the riverbanks to eat tadpoles. Gray, flat beak (like a duck), tail like a heron. It cries "paj paj paj...") (MSD). From this description, it is probably a Boat-billed Heron (*Cochlearius cochlearius*).

pasa' or pajsa' Tropical Kingbird (*Tyrannus melancholicus*), Great Kiskadee (*Pitangus sulphuratus*), and apparently large yellow-breated flycatchers in general. Aulie & Aulie (1978:138) have it as <xpasa'> for "especie de pájaro smarillo" ('species of yellow bird'). Folmar (1996:36)

has <xpasa'> listed under "Tyrant Flycatchers."

päm <p+m> "'keel-billed toucan' (*Ramphostos sulfuratus*)" (Folmar 1996:18). Aulie & Aulie (1978:97, 267) have it for "tucán cuello amarillo" ("*Ramphastos sulruatus*").

päntzik' <p+ntzik'> [a kind of toucan] (Folmar 1996:19).

peazul "queisque, grajo verde" ("Cyanocorax yncas") [Green Jay] in the Tila dialect (Aulie & Aulie 1978:267). (See xkejkex)

pech Ducks in general. Known as pato in Spanish. Folmar (1996:29) has "pech 'duck', 'cormorant'." MVS 22, 74 also notes that <pech> is a "duck, cormorant (an aquatic bird, duck); pato, cuervo (tipo de pato)."

pegre Masked Tityra (*Tityra semifasciata*). They say if you shoot one, you will get warts on your body as a punishment.

peya' Brown Jay (*Psilorhinus morio*), and perhaps other jays. Known as *peya* in Spanish. Attanasi (1973:304) gives *peya*' (orth. altered) as a "bird" that has a "harsh call" and is "large."

pichik', pichik Toucan. When it cries it means there is a snake on the trail. Attanasi (1973:305) has it as <pičik> for a "small toucan."

pichon "paloma" (Aulie & Aulie 1978:267). Folmar (1996:35) has cpichon> listed as a type of dove.

pich' Black birds identified variously as Melodious Blackbird (*Dives dives*) and also Blue-black Grassquit (*Volatinia jacarina*). They say that when it sings it is a sign that someone is on the road ahead. Attanasi gives <pič'> as "large blackbird." Becerra (1935:34) gives it as a synonym to

wachil <guachil>, which he defines as "Tordo," "Es el zanate macho, distinto en aspecto de la hembra: Quiscalus macrourus" ('It is the male Grackle, distinct in appearance from the female: Quiscalus macrourus [Great-tailed Grackle]. Berlin notes that it is a "pájaro negro" ('black bird') and gives the synonymous form as "pich" also (Matteo 2008:40). Hopkins et al. (2011) give <pijch'> and <pich'> as a "grackle (bird); zanate, tordo. Schoenhals: Cassidix mexicanus." (See wachil)

pij Northern Flicker (*Colaptes auratus*). Attanasi (1973:305) gives *pi'* (orth. altered) as "bird" and says its call is "/pi/"; perhaps the same bird.

pijije Black-bellied Whistling Duck (*Dendrocygna autumnalis*). The *pijije* is also the name used in Spanish. Folmar (1996:29) has <xpixpix> as "pijijé 'black-bellied tree duck' (*Dendrocynga autumnalis*)."

pijul "bird name: pijul (blackbird); pájaro" (MSD).

pintz'ik päm <pintzik' p+m> "'collared aracari' (Pteroglossus torquatus)" (Folmar 1996:19).

pintzik' MSD has it as "small toucan; tucán chico. Prob. emerald toucanet, Aulacorhynchus prasinus" and MSD has "small toucan; tucán chico." Aulie & Aulie (1978:269) have it without the glottal "k" as <xpintsic> for "tucancillo collarejo" ("Pterglossus torquatus") [Collared Aracari]. Folmar (1996:19) has both <xpintzik'> and <pintzik'> for "collared aracari' (Preroglossus forquutus")."

pinxik'päm <pinxik'p+m> [a kind of toucan] (Folmar 1996:19).

pipi "turkey chick" (Folmar 1996:27). Hopkins et al. (2011) note it means "turkey chick" and that it is onomatopoetic. MSD gives it as "turkey chick; pavito chico."

pipi' "'yellow legs' (*Tringa* spp.)," "tinguise" in Spanish (Folmar 1996:29).

pixix "water dove," "paloma de agua" in Spanish (Folmar 1996:29).

poyu' [listed under "Goatsuckers, Nighthawks"] (Folmar 1996:35).

pujyu' "chotacabra, caballero" ("Caprimulgus vociferous") [Whip-poor-will] (Aulie & Aulie 1978:268). Becerra (1935:33) gives it as "Puyú" for "Tapacamino," noting that it is an "Ave poco diferente de la "chotacabras" del Antiguo Continente: Caprinulgus yucatanicus" ('Bird little different from the "chotacabras" of the Old World: Caprinulgus yucatanicus [Yucatan Poorwill]'). Berlin has it as "pu(i)-yú" (Matteo 2008:39). MVS 62 has <pujyu'> for "bird name; correcamino, tapacamino." Hopkins et al. (2011) identifiy it as a "whip-poor-will." Aulie & Aulie (1978:269) have <pujyu'> for "tapacamino," "pájaro chico" ("Caprimulgus vociferous") [Whip-poor-will]. Folmar (1996:35) gives <pujyu'> as "tecolote" ('owl') but <pujyu'> as "tapacamino."

pumuk [listed as a kind of dove] (Folmar 1996:35).

puruwok Small doves including Common Ground Dove (*Columbina passerina*), Ruddy Ground Dove (*Columbina talpacoti*), Inca Dove (*Scardafella inca*). Said to include a number of "very small doves." Attanasi (1973:306) gives <por-wok> and <puru-wok> for "small dove." Aulie & Aulie (1978:139, 269) also have <puru-woc> as "columbina passerina" [Common Ground Dove] and says it is a small bird that is "color blanco, moteado de rojo" ('white, red mottled') and give it as "tortolita" in Spanish. Schumann (1973:71) has it for "tórtola." However, Whittaker and Warkentin (1965:170) give xpuruwok> as a "sparrow."
MSD MSD MSD Spuruwok> has it for "dove (bird name); paloma."
Folmar

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(1996:35) has <xpuruwok> as a type of dove.

puyero Common Nighthawk (Chordeiles minor).

p'it Presumably generic term for flycatcher.

säsäk tz'unun "white-throated hummingbird; gorrión pecho blanco" (MSD).

se lu' [listed under "Tyrant Flycatchers] (Folmar 1996:36).

sip "bird name [grossbeak?]; pijul (pájaro)" (MSD). Hopkins et al. (2011) identifies it as "Crotophaga ani, C. sulcirostris, 'smoothbilled and groove-billed ani'."

snitz <snits> [orthographic suggestion uncertain] "Golondrina" ('sparrow') (Becerra 1935:20).

<*s*+*s*+*kpech*> "'heron'" (Folmar 1996:29).

<*s*+*s*+*k* xta'jol> "'king vulture' (Sarcoramphus papa)," "carroiiero rey" in Spanish (Folmar 1996:22).

stzelel <stselel> "carpintero real, picotero" ("Campephilus guatemalensis") [Pale-billed Woodpecker] (Aulie & Aulie 1978:268).

stzijk <stsijc> "pico de oro, cerquero pico dorado" ("Arremon aurantiirostris") [Orange-billed Sparrow] (Aulie & Aulie 1978:268).

surtin An unidentified bird. Said to be like a Greater Roadrunner (Geococcyx californianus) from illustration in field guides, but it is a migratory bird.

ta rik ("Cathartes aura") [Turkey Vulture] (Folmar 1996:22).

tatmut "rooster" (Folmar 1996:27). Also, <tat-mut>, "rooster" in Attanasi (1973:296). Schumann (1973:56) gives it as <tat mut> for "gallo" ('rooster'). Becerra (1935:20) records <Tiat-rnut> for "Gallo" ('rooster'). In 1789, Juan José de la Fuente Albones gave the term for "gallo" ('rooster') as <chitón-mut> (Becerra 1935:20). Stoll (1938:55) has <ti>tiatmútiö> (tyaty muty) for "Henne" ('hen') (cf. ch'iton mut).

ta'jol, tya'jol Black Vulture (Coragyps atratus). Known as zopilote in Spanish. Attanasi (1973:317) has <tahol> for "vulture." Aulie & Aulie (1978:69) has <xta'jol> for "zopilote" or "Coragyps atratus" [Black Vulture]. Folmar (1996:26) has <(x)ta' jol> for "aura común" or "turkey vulture," but that really represents three different species. Schumann (1973:73) has <ta'jol> for "zopilote" ('vulture'). Becerra (1935:36) gives it as "Tia-jol" for "Zopilote" ('vulture') and notes it is an "Ave de rapiña mui conocida: Catharistes atratus" ('Well-known raptor bird: Catharistes atratus [should be Coragyps atratus, referring to the Black Vulture]'). Sapper (1907:450) has "Tyahol" for 'buzzard' in the Tila dialect. Aulie & Aulie (1978:269) have <xta'jol> for "zopilote negro" ("Coragyps atratus") [Black Vulture]. MVS 82 has <xta' jol> for "buzzard; zopilote (cabeza negra)."

ti', xti' Woodpeckers including Smoky-brown Woodpecker (Veniliornis fumigatus), Golden-fronted Woodpecker (Melanerpes aurifrons). The name is onomatopoetic. They say it gives a warning that something negative like an accident, a fall, etc., will happen. It announces when you are going to cut yourself, a snake is coming, or someone will come to hurt you when it cries. They say this is strongly believed by the people. Folmar (1996:20) has <xti> for a kind of woodpecker. Folmar (1996:34) has <xti> as a kind of woodpecker.

tija' "piscoy, vaquero" ("*Piaya cayana*") [Squirrel Cuckoo], given as <xti'ja'> (Aulie & Aulie 1978:139, 269). Its song means someone will die, a crime will be committed, a snake will be on the road, etc. Aulie & Aulie (1978:139) also have <xti'jamut> for "pájaro chico y colorado" ('small bird and red'). Folmar (1996:36) has <xti ja'> for "piscoy, Piaja cayana = cuckoo?".

ti'ap Squirrel Cuckoo (*Piaya cayana*). Its song is a sign that it is going to rain. However, it can also signal something bad is going to happen such as a fall or an injury.

tojt "Mexican robin; cenzontle (pájaro). "Cenzontle" names a similar bird, the mockingbird; this is the Brown or Mexican robin, *Turdus* sp., called "primavera" in central Mexico and "calandria" in Chiapas" (Hopkins et al. 2011). Becerra (1935:14) has <tioj> as "Cenzontle." MVS 88 has <tojt> for "mockingbird; zenzontle." MSD defines <tojt> as a "Mexican robin (sighting in Palenque); calandria (pájaro)." Presumably Clay-colored Thrush (*Turdus grayi*).

tojtoj tzelem "pájaro carpintero" ('woodpecker') Schumann (1973:95).

tow, tyow Laughing Falcon (Herpetotheres cachinnans). Known as gavilán in Spanish. Schumann (1973:95) has <tow> for "gavilán, águila" ('hawk, eagle'). Aulie & Aulie (1978:139, 269) have <xtow> for "buteogallus" and they describe it as "gavilán, pájaro negro (como de treinta centímeros de largo; de tierra caliente" ('hawk, black bird [about 30 centimeters in length; from colder areas]'). Folmar (1996:22) has <tow> for "cattle hawk," "gavilan vaquero" in Spanish. Schumann (1973:46, 56) gives it for both "águila" ('eagle') and "gávilan" ('hawk'). Becerra (1935:20) has "tiou" for "Gavilán" ('hawk'). MSD gives it as "pájaro vaquero, blanco en su cuerpo; alas negras arriba, blanca abajo,

collar blanco ('vaquero bird, white on its body; black on upper wings, white below, neck white')." Hopkins et al. (2011) note that it is a "gavilán" ('hawk').

tojkay, tyojkay Yucatan Bobwhite (*Colinus nigrogularis*). Aulie & Aulie (1978:153, 268) give it as <tojc'ay> once and as <xtojcay> elsewhere with variation in the glottal stop. They define it as "*Colinus virginianus*" [Northern Bobwhite] and say it is an "especie de pájaro grande (*rayado*, *negro*; *anda en el suelo*)" ('species of large bird (striped, black; goes on the ground'). They also call it "cuiche" or "cordoniz común" in Spanish (1978:113, 267). Folmar (1996:35) gives <xtojkay> for "crested guan? large ground bird; striped, black."

tunkay [listed as a type of dove] (Folmar 1996:35).

tutupani Some kind of toucan.

tutuy Type of Pygmy Owl (*Glaucidium* sp.s). Aulie & Aulie (1978:167) give <xtutuy> as a "lechuza" that is "chica". Folmar (1996:22) has <xtutuy> for "pajaro de seca," or "bird of the dry season'."

tutz "dove (bird); paloma tortolita azul" (MSD). Aulie & Aulie (1978:269) have <xtuts> for "paloma perdiz, paloma cordoniz" ("Geotrygon albifacies") [White-faced Quail Dove].

tuyub' "periquito aliamarillo" (*Brotogeris jugularis*) [Orange-chinned Parakeet] (Aulie & Aulie 1978:268). Aulie & Aulie (1978:115) also give it as "carolina paroquet." MVS 64 has <tuyub'> for "perrot; perico" and MSD has it for "parrot; cotorra (loro chico) cabeza blanca, círculo blanco (medio sucio de verde), punta de alas y cola es roja, come maíz."

tuyu', (x)tyuyu' White-fronted Parrot (Amazona albifrons). Schumann

(1973:65) also has it as <tuyu'> as "perico" ('parakeet').

tu'tu'pani' Grey-necked Wood Rail (*Aramides cajanea*). Folmar (1996:29) has <xtutupana> for the Spanish "tutupaña" and English "woodrail' (*Amerides* spp.)."

ty'iw "<*Tiiv*>/ty'iw/ *águila* 'eagle' is attested in other Mayan languages, although it is not attested for modern Chol. It is likely to be a native but obsolete term" (Josserand and Hopkins 2008:109).

tyonch'ich' Oriole (various *Icterus* sp.). Its name is onomatopoetic. They are said to eat bananas. *tyon* is a dialect variation of *ton*. Attanasi (1973:325) has it as <tun-čič> for a "small bird".

tyukuk Migratory thrush (*Catharus* sp.). They appear in September through December. There may be a variant of *tyujkuk* also.

tzelel "Pileated woodpecker (Dryocopus formicivorus)" (Folmar 1996:20). MSD has it for "woodpecker (bird); pájaro carpintero (tiene cresta)." Since Pileated Woodpecker is a North American species, this probably refers to either Lineated Woodpecker (Dryocopus lineatus) or possibly Pale-billed Woodpecker (Campephilus guatemalensis).

tzijkotzo' "chicantor" (Aulie & Aulie 1978:268) (orth. altered).

tzinkolon Secretive forest bird, identified from a field guide illustration by one informant as Common Bush Tanager (*Chlorospingus ophthalmicus*). Known as *calándria* in Spanish. Another consultant identified it as a Black Phoebe (*Sayornis nigricans*). It is a very small bird with some black, brown, and yellow. They say there are two classes: One flies near the ground and one flies higher in the forest. The bluish ones fly higher. The ones that fly low are called *amuy mut*. (See *amuy mut*).

tzunawlub <Tsunaulub> "Aguila" ('eagle') (Becerra 1935:10). Juan José de la Fuente Albo (Becerra 1935:10) gives <tiiú> as a synonym.

tz'ikway Groove-billed Ani (*Crotophaga sulcirostris*). Its name is onomatopoetic. *Tz'ekway* is a rare variant. Attinasi (1973:349) gives tz'ik-way (orth. altered) as "bird" and "small ugly blackbird."

tz'ijk "ant shrike (bird); pájaro" (MSD). Aulie and Aulie (1978:106, 268) have <stsijc> as "pico de oro" and indentify it as "*Arremon aurantilrostris*" [Orange-billed Sparrow].

tz'u' lukum <ts'u' lucum> "tipo de pájaro con pico largo" ('type of bird with a long beak'), "(Tiene la cabeza blanca y amarilla, el cuerpo negro y amarillo arriba, y blanco abajo. Las alas son negras y amarillas, la cola verde y negra, y los pies blancos. Se encuentra en la tierra fría" (It has a white and yellow head, the body black and yellow on top, and white below. The wings are black and yellow, the tail green and black, and the legs white. They are found in colder areas') (Aulie & Aulie 1978:123).

tz'uñun or tz'unun Hummingbirds (Trochilidae), all varieties. They say you will get lots of girlfriends if you swallow the heart of a hummingbird. This comes from the idea that hummingbirds get to drink from various flowers every day. Whittaker and Warkentin (1965:168) have a variant with /ə/ for both vowels, "tz'äñän" (orth. altered). MSD as <xtz'unun> for "hummingbird; gorrión." Folmar (1996:35) has numerous hummingbirds preceded by color terms.

tz'u'tz'u'chab Hummingbird. It literally means "suck-suck-honey".

ujkutz Red-billed Pigeon (*Patagioenas flavirostris*). Known in Spanish as *paloma*. Its name is onomatopoetic. It sings "*ujkukutu ujkukutu*."

Schumann (1973:71) has it as <ujkutz> for "torcaza." Attanasi (1973:329) has *u:k* (orth.altered) as "bird" and *u:k-utz* (orth. altered) as "bird, mountain dove." Aulie & Aulie (1978:269) have <x'ujcuts> "paloma ocotera, paloma de collar" ("*Columba fasciata*") [Band-talied Pigeon]. MVS 84 has <'ujkutz> as "*pigeon, dove; paloma*."

ujrich' "loro frentirrojo" and "loro verde" ("*Amazona autumnalis*") [Red-lored Amazon or Red-lored Parrot] (Aulie & Aulie 1978:125, 268). MVS 64 has <'ujrich'> as "parrot; perico." Folmar (1996:34) has <ujrich> as a "parrot."

unix <unish> "perico" ('parakeet') (Becerra 1935:28).

usijl <usijl> "Zopilote (Aasgeier)" ('buzzard') Sapper (1907:450). Stoll (1884:54) has "öjsí" for "Zopilote" ('buzzard').

wachin "grackle (bird); zanate" (Hopkins et al. 2011). Berlin (Matteo 2008:40) has it as "wachin" for "tordo." MVS 66, 86 has <wachin> for "grackle, thrush; zanate, tordo." Juan José de la Fuente Albones (Becerra 1935:15) has it as <kuich-chín> for "codorniz." Becerra (1935:34) gives it as <guachil> [wachil] meaning "Tordo," "Es el zanate macho, distinto en aspecto de la hembra: Quiscalus macrourus" ('It is the male grackle, distinct in appearance from the female: Quiscalus macrourus [Great-tailed Grackle]. Becerra also says it is the same as the cpich>. Berlin notes that it is a "pájaro negro" ('black bird') and gives the synonymous form as cpich> also (Matteo 2008:40). Berlin (Matteo 2008:40) has it as <wachin>, which Hopkins and Josserand (2008:101) suggest is better transcribed as perhaps "x-wachiñ," meaning "grackle." Whittaker and Warketin (1965:34) record it as <xwajchin> for "blackbird." (See pich')

wäj Brown-crested Flycatcher (Myiarchus tyrannulus).

wilyutz An unidentified bird. A very small bird that is partially brown, gray, and has stripes on its back. They show up around July to September in Tila, Chiapas.

wilis, wilix A kind of swallow. The name is onomatopoetic. The song of the wilis is "wilis" and, according to Whittaker and Warkentin (1965:60), it means "sweeter-sweet sweeter-sweet." Becerra (1935:20) records this term as

swelter-sweet sweeter-sweet." Becerra (1935:20) records this term as

swallow; golondrina." MVS 85 has the variant

«wilis chan» "swallow; golondrina." Aulie & Aulie (1978:269) have <xwilis» as "vencejo listado, golondrina de cueva" ("Streptoprocne zonaris") [White-collared Swift]. The Ch'ol say that when they fly in a group and circle around it means it is going to rain.

wirischan "golondrina" ('swallow') (Aulie & Aulie 1978:130). Aulie & Aulie (1978:269) also have <xwirischan> for "golondrina" ('swallow')," a ("palabra genérica") ('general term')."

wox "bird name; tipo de pájaro" (Hopkins et al. 2011). (See chanwox)

wuk pik "motmot (bird); guardabarranca. ACG. Schoenhals: Eumomota superciliosa [Turquoise-browed Motmot]. Lit., 'seven times eight thousand, 56,000" (Hopkins et al. 2011). Folmar (1996:35) gives <xwukpik> as "guardabarranco" and lists it as a kind of Trogon. Aulie & Aulie (1978:269) have <xwuquip> for "péndulo de corona, turco real" ("Momotus momota") [Blue-crowned Motmot]. They also describe it as a "pájaro (de cabeza azul, patas cortas y cola larga)" ('bird [with a blue head, short legs and long tail]') (Aulie & Aulie 1978:144, online edited version only). Folmar (1996:35) also has <xwukip> as "péndulo de corona." (cf. jukpik)

xbijmut "carpintero" ("palabra genérica") ('general term') (Aulie & Aulie 1978:134, 268).

xboch jol "capulinero" ("palabra genérica") ('general term') (Aulie & Aulie 1978:134, 268). Folmar (1996:36) has <xbochjol> listed under "Tyrant Flycatchers" and as "tiamaria" in Spanish.

xbuk' tzatz "'small kingfisher' (*Choroceryle aenea* [American Pygmy Kingfisher])," "martin pescador" in Spanish (Folmar 1996:29).

xch'aj päm "pitorreal, tucancillo collarejo" ("*Pteroglossus torquatus*") [Collared Aracari] (Aulie & Aulie 1978:268) (orth. altered). Folmar (1996:18) also, "*xch'aj p+m, ch'aj p+m*" for "emerald toucanette" (*Aulacorynchus prasinus*)."

xch'a' k'ubujl <xch'a' c'ubujl> "zacuilla, zanate de oro" ("Casicus melanicterus") [Yellow-winged Cacique] (Aulie & Aulie 1978:268).

xchäquerech' "trapador" ("palabra genérica") ('general term') (Aulie & Aulie 1978:135, 268).

xch'ij mut [listed under "Little Birds"] Folmar (1996:36).

xik "águila, gavilán" ('eagle, hawk') (Kaufman 2003:607).

xikye'xk'u(x) ch'akäl <xiye'xk'u(x) ch'ak+l> "fish-eating hawk' osprey, (Pandion haliiaetus)" (Folmar 1996:20).

xinxulu' or xunxulu' Solitary Eagle (Harpyhaliaetus solitarius). Aulie & Aulie (1978:140) have it as <xunxulu'> as "gavilán". Folmar (1996:22) has <xunxulu'> for "gavilan caracolero, or "snail (Everglades) kite' (Rhostramus sociabilis)." Folmar (1996:35) has <xunxulu'> as "gavilán" ('hawk').

xiye' Roadside Hawk (Buteo magnirostris). Folmar (1996:22) gives it as

"hawk, specific". Attanasi (1973:338) has <*šiy-e>* and <*ši>* as "bird" and "(? <u>zanate</u>)." Becerra (1935:20) has <shiyé> for "*Gavilán*" ('hawk'). MVS 75, 76, 77 has <xiye'> for "hawk, eagle; gavilán, águila" and MSD has it for "eagle, hawk; gavilán, pájaro vaquero."

xjuk'te' <xjuc'te'> "carpintero" ("palabra genérica") ('general term') (Aulie & Aulie 1978:136, 268).

xkanso pech "ganso de collar" for "collared goose" (Folmar 1996:29). Aulie & Aulie (1978:268) also have this for "ganso de collar." Unsure what bird this might be, since there are not any geese native to the Ch'ol area, and "ganso de collar" is usually Brant (*Branta bernicla*), a more northern coastal bird not normally found in the Gulf of Mexico.

xkensal <xquenzal> "quetzal" ("Pharomachrus mocinno") [Resplendent Quetzal] (Aulie & Aulie 1978:269).

xkikil xiye' "chicken hawk," "gavilan come pollo" in Spanish (Folmar 1996:22). (See *ixkikil*)

xtzinkilin [listed under "Parrots"] (Folmar 1996:34).

xk'ux mut xiye' "chicken hawk," "gavilan come pollo" in Spanish (Folmar 1996:22).

xoch' "lechuza" ('owl') (Kaufman 2003:613). Folmar (1996:22) also has this for "nocturnal bird, white, size of buzzard or heron, nagual 'animal counterpart' of witches, sign of death." MSD has <xoch'> as "nocturnal bird (name); pájaro nocturno." From the description and usage in other Mayan languages, probably Barn Owl (*Tyto alba*).

xpeskarol "belted kingfisher' (Ceryle torquara)," "martin pescador" in

Spanish (Folmar 1996:29).

xpi' "pájaro carpintero" ('woodpecker') (Schumann 1973:64).

xtop'bak [type of vulture], "bone breaker' comes from this bird's habit of breaking open the bones of a carcass to get at the marrow" (Folmar 1996:26).

xtukuk <xtucuc> "tiuca (tiuta?), "ave; tiene la cabeza amarilla arriba y blanca por abajo; la cola es amarilla y las patas blancas; es de tierra fría y anda solito" ('bird; has a yellow head on top and white below; the tail is yellow and the feet white; it's from colder areas and goes alone') ("Zenaida macroura") [Mourning Dove] (Aulie & Aulie 1978:139, 269). Folmar (1996:35) has it written as <xtutuk> instead and describes it as a bird with a "yellow head and tail, solitary."

xtzutzok'aläxkuj <xtzutzok'al+ xkuj> [type of owl] (Folmar 1996:22).

xulem "zopilote" ('buzzard') (Kaufman 2003:622).

xulit <shul-it> "Pájaro tijera" (Becerra 1935:27).

xulub Cedar Waxwing (*Bombycilla cedrorum*). Becerra (1935:27) also has as *<Shulub—ich>* for "*Pájaro tijera*," perhaps the same bird.

xumun, *xumuñ* <Xumun> "pato," as recorded by Fernández (1892:46), and transcribed as <*xumuñ*> by Hopkins and Josserand (2008:111), which they note is an obsolete term. It is also transcribed as <*xumun*> by Hopkins et al. (2011).

xunub <shunub> "Zanate" ('grackle') and given as a synonym for "Ak-shf" (see ak'xi') (Becerra 1935:36).

xunxulu' "gavilán chico" ('small hawk') (Aulie & Aulie 1978:269). Hopkins et al. (2011) connect this to Becerra's (1935:10) entry of <Tsunaulub>.

xwak che'e' <xwac ch'e'> "cordoniz común" ('Bobwhite') (Aulie & Aulie 1978:140). Folmar (1996:34) has <xwak che'e'> listed under "Turkeys and Similar Birds."

xwakwak "pajpak (?)" [type of nocturnal heron] (Folmar 1996:30).

xwakway <xwacway> "pico blanco, piquiamarillo" ("Amblycercus holosericeus") [Yellow-billed Cacique] in Tila dialect (Aulie & Aulie 1978:269). Attanasi (1973:331) has <wak-way> as "bird." Folmar (1996:35) has <xwakway> as a kind of Blackbird.

xwarach' "gallina crespa" [type of chicken] (Aulie & Aulie 1978:140).

xwis "especie de pájaro negro" ('species of black bird') (Aulie & Aulie 1978:140).

xworch'ich' "especie de pájaro negro" ('species of black bird') (Aulie & Aulie 1978:140).

xwukpik <xwucpic> "guardabarranco, jilguero común" ("Myadestes obscurus") (Aulie & Aulie 1978:269). Comments: Myadestes obscurus is certainly a misidentification since it is endemic to Hawai'i. (See wuk pik and jukpik)

xäye' "gavilán" (Aulie & Aulie 1978:140). Becerra (1935:20) also gives the form <Shuyí> for "*Gavilán*" ('hawk').

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x'alum "golondrina" ('swallow') (Aulie & Aulie 1978:136). Folmar (1996:36) has <x'alum> listd under "Swallows." (See *ajlum* and *x'ajlum*)

x'in "eagle, 'big hawk', 'snake-eating hawk'" (Folmar 1996:22). MVS 75, 76, 77 has <x'in> for "hawk, eagle; gavilán."

x'joch' "lechuza chica (*amarilla*)?" ('small owl' [yellow]?') (Aulie & Aulie 1978:269). Folmar (1996:35) has <x'joch> as "lechuza chica" ('small owl').

yajaw päm <yahaw p+m> [kind of toucan] (Folmar 1996:19).

yajaw xtya'jol <yajau-stiajol> "Zopilote rey," "Ave de rapiña de hermoso aspecto i regular tamaño: Cathartes papa" ('Raptor bird of beautiful appearance and regular size: Cathartes papa [King Vulture]')" (Becerra 1935:36). Becerra also gives chujos tya'jol (<chujos-tiajol>) as a synonym. Berlin notes the form "ahaw-tya-hol" for the same bird (Matteo 2008:45).

y-al mut "chicks" (Attanasi 1973:296).

yäjyäx mut "a blue bird; pájaro azul" (MVS 67). (cf. yäx mut).

yäxak'ach "pavo silvestre" ("Meleagris gallopavo") [Wild Turkey] (Aulie & Aulie 1978:2670) (orth. altered). Also, yäx ak'ach ("y+x ak'ach") "ocellated turkey' (Agriocharis ocellata)" (Folmar 1996:27).

yäxem joj may <y+xem joj may > "heron" (Folmar 1996:29).

yäx mut <yöx mut> "pájaro azul" ('blue bird') (Schumann 1973:64). (cf. yäjyäx mut).

yujyum "bolsero espalda amarilla, calandria" ("Icterus chrysater")

[Yellow-backed Oriole] (Aulie & Aulie 1978:2670). Folmar (1996:36) has <yujyum> as "Oriole?".

Sources cited

Aulie, H. Wilbur and Evelyn W. Aulie, compilers. 1998. *Diccionario Ch'ol de Tumbalá, Chiapas, con variaciones dialectales de Tila y Sabanilla*. Serie de vocabularios y diccionarios indígenas "Mariano Silva y Aceves," 121. Coyoacán, D. F.: Instituto Lingüístico de Verano.

Becerra, Marcos E.. 1935-1937. *Vocabulario de la lengua ch'ol*. México: Talleres gáficos de la nación. Sobretiro del Tomo II, Epoca 5^a. de los Anales de Museo Nacional de México, pp. 249-278.

Beekman, John, and Elaine Beekman. 1953. *Vocabulario Chol*. Instituto linguistico de verano en cooperacion con la direccion general de asuntos indigenas de la secretaria de educacion publica. México.

Boesman, Peter. 2006. Birds of Mexico: MP3 Sound Collection, Birdsounds.nl.

Braakhuis, H.E.M. 2010. Xbalanque's Marriage: A Commentary on the Q'eqchi' Myth of Sun and Moon. Ph.D. dissertation, Faculteit der Archeologie, Universiteit Leiden.

Cayuela, Luis, Duncan J. Golicher, Jose María Rey-Benayas. 2006. "The Extent, Distribution, and Fragmentation of Vanishing Montane Cloud Forest in the Highlands of Chiapas, Mexico," *Biotropica* 38 (4):544-554.

Chinchilla Mazariegos, Oswaldo. 2010. "Of Birds and Insects: The Hummingbird Myth in Ancient Mesoamerica." *Ancient Mesoamerica*, 21

(2010), 45–6. Cambridge University Press.

Colver, Kevin J., Donald Stokes, Lillian Stokes. 1997. *Stokes Field Guide to Bird Songs: West*. Hatchette Audio.

Edwards, Ernest Preston. 1998. A Field Guide to the Birds of Mexico and Adjacent Areas: Belize, Guatemala, and El Salvador, Third Edition, University of Texas Press.

Elliott, Lang, Donald Stokes, Lillian Stokes. 1997. Stokes Field Guide to Bird Songs: East. Hatchette Audio.

Fernández, León. 1892. Lenguas indígenas de Centro América en el siglo XVIII según copia del Archivo de Indias hecha por el Licenciado don León Fernández y publicada por Ricardo Fernández Guardia y Juan Fernández Ferraz. San José de Costa Rica: Tipografía Nacional.

Hopkins, Nicholas A. 1995. Chol. In *Encyclopedia of World Cultures, vol.* 8: *Middle America and the Caribbean*, edited by James Dow and Robert V. Kemper, 63–66. Boston and New York: G. K. Hall/Macmillan.

Hopkins, Nichoas A., and Kathryn J. Josserand. 2008. "A Chol (Mayan) vocabulary from 1789." *International Journal of American Linguistics* 74(1):83-114. (Nicholas A. Hopkins, Ausencio Cruz Guzmán, and J. Kathryn Josserand).

Hopkins, Nicholas A., J. Kathryn Josserand, and Ausencio Cruz Guzmán. 2011. A Historical Dictionary of Chol (Mayan): The Lexical Sources from 1789 to 1935. © Jaguar Tours 2010. Unpublished document in possession of authors. Used with permission of Nicholas Hopkins.

Howell, Steve N. G., Sophie Webb, 1995. A Guide to the Birds of Mexico

and Northern Central America. Oxford.

Hull, Kerry, and Rob Fergus. 2009. An Ethnoornithological Approach to Human-Bird Relations Among the Mopan Maya of Belize. In the *Proceedings of the Fourth Annual Hawaii International Conference on Social Sciences*, pp. 17-31. Honolulu, HI.

Josserand, Kathryn J., and Nicholas A. Hopkins (with Terrence Lee Folmar, Heidi Altman, Ausencio Cruz Guzmán, and Bernardo Pérez Martínez). 2001. Chol Ritual Language. A report submitted to the Foundation for the Advancement of Mesoamerican Studies, INC. (FAMSI). Online at http://www.famsi.org/reports/94017/index.html. Verified on 3/8/2011.

Kaufman, Terrence, with John Justeson. 2003. A Preliminary Mayan Etymological Dictionary. Online at: < http://www.famsi.org/reports/01051/index.html>, verified on 3/10/2011.

Peterson, Roger Tory, and Edward L. Chalif. 1999. A Field Guide to Mexican Birds: Mexico, Guatemala, Belize, El Salvador (Peterson Field Guide). New York: Houghton Mifflin Harcourt.

Ridgeway, Robert, and Herbert Friedman. 1902. *The Birds of North and Middle America*, Bulletin of the United States National Museum, No. 50, Washington: United States Government Printing Office.

Schumann, Otto G. 1973. *La Lengua Chol, de Tila (Chiapas)*. Centro de Estudios Mayas, Cuaderno 8. México: Universidad Nacional Autónoma de México.

Sapper, Karl. 1897. Das Nördliche Mittel-America Nebst Einem Ausflug Nach Dem Hochland Von Anahuac. Braunschweig, Germany: Friedrich Vieweg und Sohn.

Sapper, Karl. Choles und Chorties. 1907. In *Proceedings of the Fifteenth International Congress of Americanists*, pp. 423-465.

Stoll, Otto. 1884. Zur ethnographie der republik Guatemala. Orell Füssli.

Valdez, Luz María, and María Teresa Menéndez. 1987. *Dinámica de la población de habla indígena (1900-1980)*. Colección Científica, Serie Demografía Etnica. México, D.F.: Instituto Nacional de Antropología e Historia.

Vidal, Rosa María, n.d., A Chiapas Profile: The Regional Alliance for the Conservation of Birds and their Habitats in Chiapas. Online at < http://pronatura-sur.org/pipermail/na_chiapas_alliance_pronatura-sur.org/at tachments/20091013/c99641a7/attachment-0002.doc>, verified on 3/29/2011.

Whittaker, Arabelle A. and Viola M. Warkentin. 1965. *Chol Texts on the Supernatural*. Summer Institute of Linguistics Publications in Linguistics and Related Fields, 13. Norman: Summer Institute of Linguistics of the University of Oklahoma.