Supplementary Material. Classification of bird species from a Mexican wetland in a hierarchical system of foraging guilds (FG) nested within trophic guilds (TG). The following categories of trophic resources are classified as being of minor (Min), significant (Sig), and major (Maj) importance: (1) vegetative parts of terrestrial plants; (2) fruit; (3) nectar; (4) terrestrial seeds; (5) terrestrial, arboreal and aerial invertebrates; (6) soil and leaf-litter invertebrates; (7) herpetofauna; (8) birds and mammals; (9) plankton and aquatic plant matter; (10) aquatic invertebrates of the water column and surface; (11) aquatic infauna; (12) crabs; (13) aquatic vertebrates; and (14) carrion. ‘Ex’ denotes species excluded from TG’s on account of: (1) abundance fluctuations; (2) ecology; (3) carrion-based diet; or (4) generalist diet. Roman numerals indicate species excluded from FG’s due to: (I) nocturnal feeding; (II) specialized microhabitat; (III) opportunistic foraging; (IV) specialized foraging technique; (V) minimal foraging. Nomenclature follows the American Ornithologists’ Union 2015 check-list of North American birds.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Species | TG | FG | Min | Sig | Maj | References |
| *Ortalis*  *poliocephala* | t1 | a | 4 | 1,2 |  | Eguiarte & Martínez del Rio, 1985; Moermond & Denslow, 1985 |
| *Patagioenas*  *flavirostris* | t1 | a |  | 4 | 2 | Greenberg et al., 1997; Rappole et al., 1993; Wheelwright et al., 1984 |
| *Zenaida*  *asiatica* | t1 | a |  | 4 | 2 | Pruitt et al., 2008; Rappole et al., 1983 |
| *Trogon*  *citreolus* | t1 | a |  | 5 | 2 | Eguiarte & Martínez del Rio, 1985; Greenberg & Bichier, 2005; Remsen et al., 1993 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Eupsittula*  *canicularis* | t1 | a | 1 | 2,3,4 |  | Matuzac et al., 2008 |
| *Amazona*  *albifrons* | t1 | a | 1 | 2,3,4 |  | Matuzac et al., 2008 |
| *Saltator*  *coerulescens* | t1 | a | 1,3,4 | 2,5 |  | Eguiarte & Martínez del Rio, 1985; Herrera et al., 2006; Hutto, 1994; Moermond & Denslow, 1985; Wheelwright et al., 1984 |
| *Icterus*  *spurius* | t1 | a |  | 1,2,3,  5 |  | Gryj et al., 1990; Rappole et al., 1983 |
| *Icterus*  *pustulatus* | t1 | a |  | 2,3,5 |  | Eguiarte & Martínez del Rio, 1985; Gryj et al., 1990; Herrera et al., 2006; Hutto, 1994; Rappole et al., 1983 |
| *Cassiculus*  *melanicterus* | t1 | a |  | 2,3,5 |  | Eguiarte & Martínez del Rio, 1985; Gryj et al., 1990; Herrera et al., 2006 |
| *Leptotila*  *verreauxi* | t1 | a | 5 | 2,4 |  | Greenberg et al., 1997; Herrera et al., 2003, 2006; Wheelwright et al., 1984 |
| *Turdus*  *rufopalliatus* | t1 | a | 3,5,6 | 2 |  | Gryj et al., 1990; Hutto, 1994 |
| *Icteria*  *virens* | t1 | a | 3 | 2,5 |  | Gryj et al., 1990; Parrish, 1997; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Piranga*  *rubra* | t1 | a | 3 | 2,5 |  | Coates-Estrada & Estrada, 1986; Gryj et al., 1990; Moermond & Denslow, 1985; Rappole et al., 1983; Wheelwright et al., 1984 |
| *Arremonops*  *rufivirgatus* | t1 | b |  | 2,4,5 |  | Herrera et al., 2006; Howell & Webb, 1995 |
| *Cardinalis*  *cardinalis* | t1 | b |  | 2,4,5 |  | Baldwin et al., 2008; McGraw et al., 2003; Poulin et al., 1994 (congener) |
| *Columbina*  *inca* | t1 | b | 5 |  | 4 | Herrera et al., 2006; Pérez & Bulla, 2000 |
| *Columbina*  *talpacoti* | t1 | b | 5 |  | 4 | Herrera et al., 2006 |
| *Cyanocompsa*  *parellina* | t1 | b | 3 | 2,4 |  | Coates-Estrada & Estrada, 1986; Gryj et al., 1990; Hutto, 1994 |
| *Sporophila*  *minuta* | t1 | b |  |  | 4 | Poulin et al., 1994 (congener) |
| *Sporophila*  *torqueola* | t1 | b |  |  | 4 | Poulin et al., 1994 (congener) |
| *Empidonax*  *difficilis* | t2 | c |  | 2,5 |  | Parrish, 1997 (congener); Rappole et al., 1983 |
| *Empidonax*  *minimus* | t2 | c |  | 2,5 |  | Parrish, 1997; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Empidonax*  *traillii* | t2 | c |  | 2,5 |  | Eckhardt, 1979; Parrish, 1997; Rappole et al., 1983 |
| *Megarynchus*  *pitangua* | t2 | c |  | 2,5 |  | Greenberg & Bichier, 2005; Wheelwright et al., 1984 |
| *Myiarchus*  *cinerascens* | t2 | c |  | 2,5 |  | Hutto, 1994; Rappole et al., 1983 |
| *Myiarchus*  *tyrannulus* | t2 | c |  | 2,5 |  | Herrera et al., 2006; Moermond & Denslow, 1985; Poulin et al., 1994; Rappole et al., 1983 |
| *Myiozetetes*  *similis* | t2 | c |  | 2,5 |  | Eguiarte & Martínez del Rio, 1985; Herrera et al., 2006; Wheelwright et al., 1984 |
| *Vireo*  *flavoviridis* | t2 | c |  | 2,5 |  | Morton, 1977 |
| *Vireo*  *gilvus* | t2 | c |  | 2,5 |  | Parrish, 1993; Rappole et al., 1983; Root, 1967 |
| *Heliomaster*  *constantii* | t2 | d |  | 3,5 |  | Arizmendi & Ornelas, 1990; Gryj et al., 1990; Remsen et al., 1986 |
| *Amazilia*  *rutila* | t2 | d |  | 3,5 |  | Arizmendi & Ornelas, 1990; Gryj et al., 1990; Remsen et al., 1986 |
| *Archilochus*  *colubris* | t2 | d |  | 3,5 |  | Arizmendi & Ornelas, 1980; Courter et al., 2013; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Agelaius*  *phoeniceus* | t2 | e | 2 | 4 | 5 | Best, 2001; Krauss & Yasukawa, 2013; Rappole et al., 1983; |
| *Attila*  *spadiceus* | t2 | e | 2 | 7 | 5 | Herrera et al., 2003; Poulin et al., 1999; 2001; Sherry & McDade, 1982; |
| *Camptostoma*  *imberbe* | t2 | e |  | 2 | 5 | Fitzpatrick, 1980; Hutto, 1994; Rappole et al., 1983 |
| *Campylorhynchus*  *rufinucha* | t2 | e |  |  | 5 | Greenberg & Bichier, 2005 |
| *Cardellina*  *pusilla* | t2 | e | 3 | 2 | 5 | Greenberg & Bichier, 2005; Gryj et al., 1990; Hutto, 1981; Parrish, 1997; Rappole et al., 1983 |
| *Catharus*  *ustulatus* | t2 | e |  | 2,5,6 |  | Coates-Estrada & Estrada, 1986; Moermond & Denslow, 1985; Parrish, 1997; Rappole et al., 1983; Wheelwright et al., 1984 |
| *Contopus*  *sordidulus* | t2 | e | 2 |  | 5 | Eckhardt, 1979; Rappole et al., 1983 |
| *Crotophaga*  *sulcirostris* | t2 | e | 2,7 |  | 5 | Greenberg & Bichier, 2005; Vehrencamp, 1978; Wheelwright et al., 1984; Wunderle, 1981 |
| *Geothlypis*  *tolmiei* | t2 | e | 3 |  | 5 | Hutto, 1981; Parrish, 1997; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Geothlypis*  *trichas* | t2 | e |  | 2 | 5 | Hutto, 1981; Parrish, 1997; Rappole et al., 1983 |
| *Icterus*  *gularis* | t2 | e | 3 | 2 | 5 | Pleasants, 1981 |
| *Icterus*  *pectoralis* | t2 | e | 3 | 2 | 5 | Pleasants, 1981 (congener); Wunderle, 1978 |
| *Mniotilta*  *varia* | t2 | e | 2,3 |  | 5 | Greenberg & Bichier, 2005; Gryj et al., 1990; Parrish, 1997; Rappole et al., 1983 |
| *Morococcyx*  *erythropygus* | t2 | e | 6,7 |  | 5 | Fleming & Hooker, 1975; Skutch, 1966 |
| *Pachyramphus*  *aglaiae* | t2 | e | 2 | 5 |  | Greenberg et al., 1997; Hutto 1994 |
| *Passerculus*  *sandwichensis* | t2 | e |  | 4,5,6 |  | Rappole et al., 1983 |
| *Pheugopedius*  *felix* | t2 | e | 2 |  | 5 | Greenberg & Bichier, 2005; Herrera et al., 2006 (congener); pers. obs. |
| *Polioptila*  *albiloris* | t2 | e |  |  | 5 | Greenberg & Bichier, 2005; Root, 1967 |
| *Setophaga*  *americana* | t2 | e | 3 | 2 | 5 | Parrish, 1997; Rappole et al., 1983 |
| *Setophaga*  *petechia* | t2 | e | 2 |  | 5 | Greenberg et al., 1997; Parrish, 1997; Rappole et al., 1983 |
| *Setophaga*  *ruticilla* | t2 | e | 2 |  | 5 | Parrish, 1997; Poulin et al., 1994; Rappole et al., 1983 |
| *Thryophilus*  *pleurostictus* | t2 | e | 2,6 |  | 5 | Herrera et al., 2006; Hutto, 1994 |
| *Vireo*  *bellii* | t2 | e |  | 2 | 5 | Coates-Estrada & Estrada, 1986; Rappole et al., 1983 |
| *Vireo*  *hypochryseus* | t2 | e | 3 | 2 | 5 | Gryj et al., 1990; Hutto, 1994; Parrish, 1997; Rappole et al., 1983; Wheelwright et al., 1984 |
| *Campephilus*  *guatemalensis* | t2 | f |  |  | 5 | Askins, 1983; Greenberg et al., 1997; Hutto, 1994 |
| *Dryocopus*  *lineatus* | t2 | f |  |  | 5 | Askins, 1983; Greenberg et al., 1997 |
| *Melanerpes*  *chrysogenys* | t2 | f | 3 | 2 | 5 | Eguiarte & Martínez del Rio, 1985; Gryj et al., 1990; Hutto, 1994 |
| *Hirundo*  *rustica* | t2 | g | 2 |  | 5 | Rappole et al., 1983 |
| *Petrochelidon*  *pyrrhonota* | t2 | g | 2 |  | 5 | Rappole et al., 1983 |
| *Progne*  *chalybea* | t2 | g |  |  | 5 | Howell & Webb, 1995 |
| *Stelgidopteryx*  *serripennis* | t2 | g |  |  | 5 | Howell & Webb, 1995 |
| *Streptoprocne*  *zonaris* | t2 | g |  |  | 5 | Rowley & Orr, 1965 |
| *Tachycineta*  *albilinea* | t2 | g |  |  | 5 | Moore et al., 1999 |
| *Tyrannus*  *crassirostris* | t2 | g | 2 | 5 |  | Hutto, 1994; Rappole et al., 1983 |
| *Tyrannus*  *melancholicus* | t2 | g |  | 2 | 5 | Fitzpatrick, 1980; Moermond & Denslow, 1985; Rappole et al., 1983; Wheelwright et al., 1984 |
| *Nyctidromus*  *albicollis* | t2 | I |  |  | 5 | Howell & Webb, 1995 |
| *Parkesia*  *noveboracensis* | t2 | II | 2,4,5,  13 | 10 | 6 | Parrish, 1997; Poulin et al., 1994; Rappole et al., 1983 |
| *Pitangus*  *sulphuratus* | t2 | III | 7,12,  13 | 2,5 |  | Eguiarte & Martínez del Rio, 1985; Fitzpatrick, 1980; Herrera et al., 2006; Iribarne & Martinez, 1999; Rappole et al., 1983 |
| *Quiscalus*  *mexicanus* | t2 | III | 14 | 2,4,5,  12 |  | Wehtje, 2003; pers. obs. |
| *Rupornis magnirostris* | t3 | h | 5 | 7 | 8 | Baldarón et al., 2011; Panasci & Whitacre, 2000 |
| *Buteo*  *plagiatus* | t3 | h | 5 | 7 | 8 | pers. obs |
| *Buteogallus*  *anthracinus* | t3 | h |  | 5,7,8,  12 |  | Rappole et al., 1983 |
| *Circus*  *cyaneus* | t3 | h | 5,7 |  | 8 | García & Arroyo, 2005; Rappole et al., 1983 |
| *Falco*  *peregrinus* | t3 | h | 5 |  | 8 | Castellanos et al., 2006; Ellis et al., 2004 |
| *Geranospiza*  *caerulescens* | t3 | h |  | 7 | 8 | Sutter et al., 2001 |
| *Calocitta*  *formosa* | t3 | i |  | 2,5,7,  8 |  | Berg, 2004 |
| *Glaucidium*  *brasilianum* | t3 | i |  | 5,7,8 |  | Poulin et al., 1994; pers. obs |
| *Piaya*  *cayana* | t3 | i | 2,8 | 5,7 |  | Greenberg et al., 1997; Greenberg & Birchier, 2005; Komar & Thurber, 2003; Skutch, 1966 |
| *Anas*  *clypeata* | a1 | j | 4,13 | 9,10 |  | Bellrose, 1980; Rappole et al., 1983; Tietje & Teer, 1996 |
| *Anas*  *discors* | a1 | j |  | 4,9,10 |  | Bellrose, 1980; Botrero & Rusch, 1994; Rappole et al., 1983 |
| *Aythya*  *americana* | a1 | j | 4,5,10,  13 |  | 9 | Adair et al., 1996; Bellrose, 1980; Mitchell et al., 1994; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Dendrocygna*  *bicolor* | a1 | j |  | 4,9,10 |  | Carroll, 1932; Rappole et al., 1983; Rylander & Bolen, 1974 |
| *Gallinula*  *galeata* | a1 | j |  | 5,9,10 |  | Rappole et al., 1983 |
| *Porphyrio*  *martinicus* | a1 | j |  | 9,10 |  | Rappole et al., 1983; Stephens, 1984 |
| *Actitis*  *macularius* | a2 | k | 13 | 5 | 10 | Placyk & Harrington, 2004; Rappole et al., 1983 |
| *Arenaria*  *interpres* | a2 | k | 12 | 5,10,  11 |  | Rappole et al., 1983; Whitfield, 1990 |
| *Calidris*  *alba* | a2 | k | 9,12,  13 | 5,10,  11 |  | Petracci, 2002; Rappole et al., 1983; Vanermen et al., 2009 |
| *Calidris*  *mauri* | a2 | k |  | 5,10,  11 |  | Paulson, 2005; Rappole et al., 1983 |
| *Calidris*  *melanotos* | a2 | k | 9 | 5,10,  11 |  | Brooks, 1967; Holden & Cleeves, 2002; Rappole et al., 1983 |
| *Calidris*  *minutilla* | a2 | k |  | 5,10,  11 |  | Baker & Baker, 1973; Brooks, 1967; Paulson, 2005; Rappole et al., 1983 |
| *Charadrius*  *collaris* | a2 | k | 12 | 5,10 |  | Howell & Webb, 1995; Iribarne & Martinez, 1999 |
| *Charadrius*  *nivosus* | a2 | k | 11 | 5,10 |  | Paulson, 2005; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Charadrius*  *semipalmatus* | a2 | k | 11 | 5,10,  12 |  | Baker & Baker, 1973; Rappole et al., 1983; Smith & Nol, 2000 |
| *Charadrius*  *wilsonia* | a2 | k | 11 | 5,10,  12 |  | Iribarne & Martinez, 1999; Paulson, 2005; Rappole et al., 1983 |
| *Pluvialis*  *squatarola* | a2 | k | 12 | 5,10 |  | Iribarne & Martinez, 1999; Rappole et al., 1983 |
| *Himantopus*  *mexicanus* | a2 | l |  | 5,13 | 10 | Rappole et al., 1983; Ueng et al., 2009 (congener) |
| *Phalaropus*  *tricolor* | a2 | l |  | 5,9 | 10 | Paulson, 2005; Rappole et al., 1983 |
| *Recurvirostra*  *americana* | a2 | l | 5,9,13 | 10,11 |  | Boettcher et al., 1995; Rappole et al., 1983 |
| *Tringa*  *flavipes* | a2 | l | 13 | 5,11 | 10 | Baker & Baker, 1973; Brooks, 1967; Paulson, 2005; Rappole et al., 1983; Weber & Haig, 1997 |
| *Tringa*  *melanoleuca* | a2 | l | 11 | 5,13 | 10 | Brooks, 1967; Paulson, 2005; Rappole et al., 1983 |
| *Tringa*  *semipalmata* | a2 | l | 11,12,  13 | 5,10 |  | Castillo-Guerrero et al., 2009; Paulson, 2005; Rappole et al., 1983 |
| *Limnodromus*  *griseus* | a2 | m |  | 10 | 11 | Baker & Baker, 1973; Rappole et al., 1983; Weber & Haig, 1997 |
| *Limosa*  *fedoa* | a2 | m | 5,10,  12 |  | 11 | Castillo-Guerrero et al., 2009; Rappole et al., 1983 |
| *Numenius*  *phaeopus* | a2 | m | 5,10,  12 |  | 11 | Rappole et al., 1983; Velásquez & Navarro, 1993 |
| *Plegadis*  *chihi* | a2 | II | 7,13 | 5,11 | 10 | Rappole et al., 1983; Safran et al., 2000; Soave et al., 2006 |
| *Jacana*  *spinosa* | a2 | I | 5,9,13 |  | 10 | Howell & Webb, 1995; Jenni & Collier, 1972 |
| *Eudocimus*  *albus* | a2.5 | n | 5,7 | 10,12,  13 |  | Kushlan, 1979; Rappole et al., 1983 |
| *Ixobrychus*  *exilis* | a2.5 | n | 7 | 5,10,  13 |  | Rappole et al., 1983 |
| *Platalea*  *ajaja* | a2.5 | n | 9 | 10,13 |  | Rappole et al., 1983; Swennen & Yu, 2005 (congener) |
| *Podilymbus*  *podiceps* | a2.5 | n | 9 | 5,10,  13 |  | Rappole et al., 1983 |
| *Tachybaptus*  *dominicus* | a2.5 | n |  | 5,10,  13 |  | Howell & Webb, 1995 |
| *Egretta*  *caerulea* | a2.5 | o | 5,7 | 10,13 | 12 | Miranda & Collazo, 1997; Olmos et al., 2001; Rappole et al., 1983; Wunderle, 1981 |
| *Nyctanassa*  *violacea* | a2.5 | o | 5,7,9,  10 | 8 | 13 | Martínez, 2004; Rappole et al., 1983 |
| *Chlidonias*  *niger* | a2.5 | z |  | 5,10,  13 |  | Beintema et al., 2010; Rappole et al., 1983 |
| *Phalacrocorax*  *brasilianus* | a3 | p | 9,10 |  | 13 | Casaux et al., 2009; Rappole et al., 1983 |
| *Ardea*  *alba* | a3 | p | 5,7,12 | 10 | 13 | Miranda & Collazo, 1997; Ramo & Busto, 1993; Rappole et al., 1983 |
| *Ardea*  *herodias* | a3 | p | 5,7,8,  9,10 |  | 13 | Ramo & Busto, 1993; Rappole et al., 1983 |
| *Butorides*  *virescens* | a3 | p | 5 | 10 | 13 | Helm, 2012; Rappole et al., 1983 |
| *Cochlearius*  *cochlearius* | a3 | p |  | 10 | 13 | Kushlan, 2009; Ramo & Busto, 1993 |
| *Egretta*  *rufescens* | a3 | p | 10 |  | 13 | Ramo & Busto, 1993; Rappole et al., 1983 |
| *Egretta*  *thula* | a3 | p | 5,7 | 10 | 13 | Miranda & Collazo, 1997; Ramo & Busto, 1993; Rappole et al., 1983 |
| *Egretta*  *tricolor* | a3 | p | 5,10 |  | 13 | Miranda & Collazo, 1997; Ramo & Busto, 1993; Rappole et al., 1983 |
| *Mycteria*  *americana* | a3 | p | 5,7,9,  10, |  | 13 | Ogden et al., 1976; Rappole et al., 1983 |
| *Nycticorax*  *nycticorax* | a3 | p | 5,7,10,  13 |  | 12 | Hall & Kress, 2008; Rappole et al., 1983 |
| *Anhinga*  *anhinga* | a3 | q | 9,10 |  | 13 | Owre, 1967; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Hydroprogne*  *caspia* | a3 | q | 10 |  | 13 | Collis et al., 2012; Rappole et al., 1983; Thompson et al., 2002 |
| *Megaceryle*  *alcyon* | a3 | q | 10 |  | 13 | Rappole et al., 1983; Sullivan et al., 2006 |
| *Megaceryle*  *torquata* | a3 | q | 10 |  | 13 | Green et al., 1978; Rappole et al., 1983; Willard, 1985 |
| *Pandion*  *haliaetus* | a3 | q | 5,7 |  | 13 | Green et al., 1978; Rappole et al., 1983 |
| *Pelecanus*  *occidentalis* | a3 | q | 10 | 13 |  | Rappole et al., 1983; Visser et al., 2005 |
| *Rynchops*  *niger* | a3 | q |  | 10 | 13 | Naves & Vooren, 2006; Rappole et al., 1983 |
| *Sternula*  *antillarum* | a3 | q |  |  | 13 | Atwood & Kelly, 1984; Elliott et al., 2007; Zuria & Mellink, 2005 |
| *Chloroceryle*  *amazona* | a3 | q | 10 |  | 13 | Willard, 1985 |
| *Chloroceryle*  *americana* | a3 | q | 10 |  | 13 | Fry et al., 1992; Willard, 1985 |
| *Thalasseus*  *elegans* | a3 | V | 10 |  | 13 | Dahdul & Horn, 2003; Rappole et al., 1983 |
| *Thalasseus*  *maximus* | a3 | V | 10,12 |  | 13 | Aygen & Emslie, 2006; Rappole et al., 1983 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| *Fulica*  *americana* | Ex1 | n/a | 4,5,10,  13 |  | 9 | Rappole et al., 1983; Villamagna et al., 2010 |
| *Dendrocygna*  *autumnalis* | Ex2 | n/a | 1,5,10 |  | 4 | Bellrose, 1980; Kramer & Euliss, 1986 |
| *Fregata*  *magnificens* | Ex2 | n/a | 10 |  | 13 | Calixto-Albarrán & Osorno, 2000 |
| *Bubulcus*  *ibis* | Ex2 | n/a | 7 | 5 |  | Rappole et al., 1983; Wunderle, 1981 |
| *Cathartes*  *aura* | Ex3 | n/a | 5 |  | 14 | Rappole et al., 1983 |
| *Coragyps*  *atratus* | Ex3 | n/a | 5 |  | 14 | Rappole et al., 1983 |
| *Leucophaeus*  *atricilla* | Ex4 | n/a | 12 | 5,10,13,14 |  | Bernhardt et al., 2010; Dosch, 1997; Howell & Dunn, 2007; Rappole et al., 1983 |
| *Leucophaeus*  *pipixcan* | Ex4 | n/a |  | 5,10,13,14 |  | Howell & Dunn, 2007; Rappole et al., 1983 |
| *Coccyzus*  *minor* | Ex4 | n/a |  | 2,5,7 |  | Rappole et al., 1983; Wunderle, 1981 |
| *Momotus*  *mexicanus* | Ex4 | n/a |  | 2,5,7 |  | Remsen et al., 1993; pers. obs. |

REFERENCES FOR SUPPLEMENTARY MATERIAL

Adair, S. E., Moore, J. L., & Kiel Jr., W. H. (1996). Wintering diving duck use of coastal ponds: an analysis of alternative hypotheses. *Journal of Wildlife Management*, *60*, 83-93.

Arizmendi, M., & Ornelas, J. F. (1990). Hummingbirds and their floral resources in a tropical dry forest in Mexico. *Biotropica*, *22*, 172-180.

Askins, R. A. (1983). Foraging ecology of temperate-zone and tropical woodpeckers. *Ecology*, *64*, 945-956.

Atwood, J. L., & Kelly, P. R. (1984). Fish dropped on breeding colonies as indicators of Least Tern food habits. *Wilson Bulletin*, *96*, 34-47.

Aygen, D., & Emslie, S. D. (2006). Royal Tern (*Sterna maxima*) chick diet at Fisherman Island National Wildlife Refuge, Virginia. *Waterbirds*, *29*, 395-400.

Baker, M. C., & Baker, A. E. M. (1973). Niche relationships among six species of shorebirds on their wintering and breeding ranges. *Ecological Monographs*, *43*, 193-212.

Baldarón, A.V., Bó, M. S., Malizia, A. I., & Bechard, M. J. (2011). Food habits of the Roadside Hawk (*Buteo magnirostris*) during nonbreeding season in the Southeastern Pampas of Argentina. *Journal of Raptor Research*, *45*, 257-261.

Baldwin, M. J., Barrow Jr., W. C., Jeske, C., & Rohwer, F. C. (2008). Metabolizing energy in Chinese Tallow fruit for Yellow-rumped Warblers, Northern Cardinals, and American Robins. *Wilson Journal of Ornithology*, *120*, 525-530.

Beintema, A. J., van der Winden, J., Baarspul, T., de Krijger, J. P., van Oers, K., & Keller, M. (2010). Black terns *Chlidonias niger* and their dietary problems in Dutch wetlands. *Ardea*, *98*, 365-372.

Bellrose, F. C. (1980). *Ducks, Geese and Swans of North America* (3rd ed.). Washington DC: Stackpole Books.

Berg, E. C. (2004). A test of sex-ratio biasing in the White-throated Magpie-Jay, a cooperative breeder with female helpers. *Condor*, *106*, 299-308.

Bernhardt, G. E., Kutschbach-Brohl, L., Washburn, B. E., Chipman, R. B., & Francoeur, L. C. (2010). Temporal variation in terrestrial invertebrate consumption by Laughing gulls in New York. *American Midland Naturalist*, *163*, 442-454.

Best, L. B. (2001). Temporal patterns of bird abundance in cornfield edges during breeding season. *American Midland Naturalist*, *146*, 94-104.

Boettcher, R., Haig, S. M., & Bridges Jr., W. C. (1995). Habitat-related factors affecting the distribution of non-breeding American Avocets in coastal South Carolina. *Condor*, *97*, 68-81.

Botrero, J. E., & Rusch, D. H. (1994). Foods of blue-winged teal in two neotropical wetlands. *Journal of Wildlife Management*, *58*, 561-565.

Brooks, W. S. (1967). Food and feeding habits of autumn migrant shorebirds at a small Midwestern pond. *Wilson Bulletin*, *79*, 307-315.

Calixto-Albarrán, I., & Osorno, J.-L. (2000). The diet of the Magnificent Frigatebird during chick rearing. *Condor*, *102*, 569-576.

Carroll, J. J. (1932). A change in distribution of the Fulvous Tree Duck (*Dendrocygna bicolor helva*) in Texas. *Auk*, *49*, 343-344.

Casaux, R. J., Di Prinzio, C. Y., Bertolin, M. L., & Tartara, M. A. (2009). Diet of the Neotropic Cormorant *Phalacrocorax olivaceus* at West Chubut, Patagonia, Argentina. *Waterbirds*, *32*, 444-449.

Castellanos, A., Arqüelles, C., Salinas, F., Rodríguez, A., & Sánchez, E. (2006). Food habits of breeding Peregrine falcons (*Falco peregrinus*) in the Ojo de Liebre Lagoon, Baja California, Mexico. In R. Rodríguez-Estrella (Ed.), *Current raptor studies in Mexico* (pp.71-82). Mexico City: CONABIO.

Castillo-Guerrero, J. A., Fernández, G., Arellano, G., & Mellink, E. (2009). Diurnal abundance, foraging behaviour and habitat use by non-breeding Marbled Godwits and Willets at Guerrero Negro, Baja California Sur, Mexico. *Waterbirds*, *32*, 400-407.

Coates-Estrada, R., & Estrada, A. (1986). Fruiting and frugivores at a strangler fig in the tropical rain forest of Los Tuxtlas, Mexico. *Journal of Tropical Ecology*, *2*, 349-357.

Collis, K., Roby, D. D., Larson, K. W., Adrean, L. J., Nelson, S. K., Evans, A. F., Hostetter, N., Battaglia, D., Lyons, D. E., Marcella, T., & Patterson, A. (2012). Trends in Caspian Tern nesting and diet in San Francisco Bay: conservation implications for terns and salmonids. *Waterbirds*, *35*, 25-34.

Courter, J. R., Johnson, R. J., Bridges, W. C., & Hubbard, K. G. (2013). Assessing migration of Ruby-throated Hummingbirds (*Archilochus colubris*) at broad spatial and temporal scales. *Auk*, *130*, 107-117.

Dahdul, W. M., & Horn, M. H. (2003). Energy allocation and postnatal growth in captive Elegant Tern (*Sterna elegans*) chicks: responses to high- versus low-energy diets. *Auk*, *120*, 1069-1081.

Dosch, J. J. (1997). Diet of nestling Laughing Gulls on southern New Jersey. *Colonial Waterbirds*, *20*, 273-281.

Eckhardt, R. C. (1979). The adaptive syndromes of two guilds of insectivorous birds in the Colorado Rocky Mountains. *Ecological Monographs*, *49*, 129-149.

Eguiarte, L. E., & Martínez del Rio, C. (1985). Feeding habits of the Citreoline Trogon in a tropical dry forest during the dry season. *Auk*, *102*, 872-874.

Elliott, M. L., Hurt, R., & Sydeman, W. J. (2007). Breeding biology and status of the California Least Tern *Sterna antillarum browni* at Alameda Point, San Francisco Bay, California. *Waterbirds*, *30*, 317-325.

Ellis, D. H., Ellis, C. H., Sabo, B. A., Rea, A. M., Dawson, J., Fackler, J. K., Larue, C. T., Grubb, T. G., Schmitt, J., Smith, D. G., & Kéry, M. (2004). Summer diet of the Peregrine Falcon in faunistically rich and poor zones of Arizona analyzed with capture-recapture modeling. *Condor*, *106*, 873-886.

Fitzpatrick, J. W. (1980). Foraging behavior of Neotropical tyrant flycatchers. *Condor*, *82*, 43-57.

Fleming, T. H., & Hooker, R. S. (1975). *Anolis cupreus*: the response of a lizard to tropical seasonality. *Ecology*, *56*, 1243-1261.

Fry, C. H., Fry, K., & Harris, A. (1992). *Kingfishers, Rollers and Bee-eaters*. London: Christopher Helm Publishers.

García, J. T., & Arroyo, B. E. (2005). Food-niche differentiation in sympatric Hen *Circus cyaneus* and Montagu´s harriers *Circus pygargus*. *Ibis*, *147*, 144-154.

Green, H. W., Burghardt, G. M., Dugan, B. A., & Rand, A. S. (1978). Predation and the defensive behaviour of Green iguanas (Reptilia, Lacertilia, Iguanidae). *Journal of Herpetology*, *12*, 169-176.

Greenberg, R., Bichier, P., & Sterling, J. (1997). Bird populations in rustic and planted shade coffee plantations of eastern Chiapas, Mexico. *Biotropica*, *29*, 501-514.

Greenberg, R., & Bichier, P. (2005). Determinants of tree species preference of birds in Oak-Acacia woodlands of Central America. *Journal of Tropical Ecology*, *21*, 57-66.

Gryj, E., Martínez del Rio, C., & Baker, I. (1990). Avian pollination and nectar use in *Combretum fruticosum* (Loefl.). *Biotropica*, *22*, 266-271.

Hall, C. S., & Kress, S. W. (2008). Diet of nestling Black-crowned Night-herons in a mixed species colony: implications for tern conservation. *Wilson Journal of Ornithology*, *120*, 637-640.

Helm, S. R. (2012). Notes on prey of a Green Heron from Oregon. *Northwestern Naturalist*, *93*, 85-87.

Herrera, L. G., Hobson, K. A., Rodríguez, M., & Hernandez, P. (2003). Trophic partitioning in tropical rain forest birds: insights from stable isotope analysis. *Oecologia*, *136*, 439-444.

Herrera M., L. G., Hobson, K. A., Martínez, J. C., & Méndez C., G. (2006). Tracing the origin of dietary protein in tropical dry forest birds. *Biotropica*, *38*, 735-742.

Holden, P., & Cleeves, T. (2002). *RSPB Handbook of British birds*. London: Bloomsbury Publishing PLC.

Howell, S. N. G., & Dunn, J. (2007). *Gulls of the Americas*. New York, NY: Peterson Field Guides.

Howell, S. N. G., & Webb, S. (1995). *A Guide to the Birds of Mexico and Northern Central America*. New York, NY: Oxford University Press.

Hutto, R. L. (1981). Seasonal variation in the foraging behaviour of some migratory western wood warblers. *Auk*, *98*, 765-777.

Hutto, R. L. (1994). The composition and social organization of mixed-flocks in a tropical deciduous forest in western Mexico. *Condor*, *96*, 105-118.

Iribarne, O. O., & Martinez, M. M. (1999). Predation on the southwestern Atlantic fiddler crab (*Uca uruguayensis*) by migratory shorebirds (*Pluvialis dominica*, *Pluvialis squatarola*, *Arenaria interpres*, and *Numenius phaeopus*). *Estuaries*, *22*, 47-54.

Jenni, D. A., & Collier, G. (1972). Polyandry in the American Jaҫana (*Jacana spinosa*). *Auk*, *89*, 743-765.

Komar, O., & Thurber, W. A. (2003). Predation on birds by a cuckoo (Cuculidae), mockingbird (Mimidae), and saltator (Cardinalidae). *Wilson Bulletin*, *115*, 205-208.

Kramer, G. W., & Euliss Jr., N. H. (1986). Winter foods of black-bellied whistling-ducks in northwestern Mexico. *Journal of Wildlife Management*, *50*, 413-416.

Krauss, N., & Yasukawa, K. (2013). How do female Red-winged Blackbirds allocate food within broods? *Condor*, *115*, 198-208.

Kushlan, J. A. (1979). Feeding ecology and prey selection in the White ibis. *Condor*, *81*, 376-389.

Kushlan, J. A. (2009). Feeding repertoire of the Boat-billed Heron (*Cochlearius cochlearius*). *Waterbirds*, *32*, 408-414.

Matuzak, G. D., Bezy, M. B., & Brightsmith, D. J. (2008). Foraging ecology of parrots in a modified landscape: seasonal trends and introduced species. *Wilson Journal of Ornithology*, *120*, 353-365.

Martínez, C. (2004). Food and niche overlap of the Scarlet Ibis and the Yellow-crowned Night-heron in a tropical mangrove swamp. *Waterbirds*, *27*, 1-8.

McGraw, K. J., Hill, G. E., & Parker, R. S. (2003). Carotenoid pigments in a mutant cardinal: implications for the genetic and enzymatic control mechanism of carotenoid metabolisms in birds. *Condor*, *105*, 587-592.

Miranda, L., & Collazo, J. A. (1997). Food habits of 4 species of wading birds (Ardeidae) in a tropical mangrove swamp. *Colonial Waterbirds*, *20*, 413-418.

Mitchell, C. A., Custer, T. W., & Zwank, P. J. (1994). Herbivory on shoalgrass by wintering redheads in Texas. *Journal of Wildlife Management*, *58*, 131-141.

Moermond, T. C., & Denslow, J. S. (1985). Neotropical avian frugivores: patterns of behaviour, morphology, and nutrition, with consequences for fruit selection. *Ornithological Monographs*, *36*, 865-897.

Moore, O. R., Stutchbury, B. J. M., & Quinn, J. S. (1999). Extrapair mating system of an asynchronously breeding tropical songbird: the Mangrove Swallow. *Auk*, *116*, 1039-1046.

Morton, E. S. (1977). Intratropical migration in the Yellow-green Vireo and Piratic Flycatcher. *Auk*, *94*, 97-106.

Naves, L. C., & Vooren, C. M. (2006). Diet of Black Skimmers in southern Brazil. *Waterbirds*, *29*, 335-344.

Ogden, J. C., Kushlan, J. A., & Tilmant, J. T. (1976). Prey selectivity by the Wood Stork. *Condor*, *78*, 324-330.

Olmos, F., Silva, R. S. E., & Prado, A. (2001). Breeding season diet of Scarlet Ibises and Little Blue Herons in a Brazilian mangrove swamp. *Waterbirds*, *24*, 50-57.

Owre, O. T. (1967). Adaptations for locomotion and feeding in the Anhinga and the Double-crested Cormorant. *Ornithological Monographs*, *6*, 1-138.

Panasci, T., & Whitacre, D. (2000). Diet and foraging behaviour of nesting Roadside Hawks in Petén, Guatemala. *Wilson Bulletin*, *112*, 555-558.

Parrish, J. D. (1997). Patterns of frugivory and energetic condition in Nearctic landbirds during autumn migration. *Condor*, *99*, 681-697.

Paulson, D. R. (2005). *Shorebirds of North America: the Photographic Guide*. Princeton, New Jersey: Princeton University Press.

Pérez, E. M., & Bulla, L. (2000). Dietary relationships among four granivorous doves in Venezuelan savannas. *Journal of Tropical Ecology*, *16*, 865-882.

Petracci, P. (2002). Diet of Sanderlings in Buenos Aires Province, Argentina. *Waterbirds*, *25*, 366-370.

Placyk Jr., J. S., & Harrington, B. A. (2004). Prey abundance and habitat use by migratory shorebirds at coastal stopover sites in Connecticut. *Journal of Field Ornithology*, *75*, 223-231.

Pleasants, B. Y. (1981). Aspects of the breeding biology of a subtropical oriole, *Icterus gularis*. *Wilson Bulletin*, *93*, 531-537.

Poulin, B., Lefebvre, G., & McNeil, R. (1994). Diets of land birds from northeastern Venezuela. *Condor*, *96*, 354-367.

Poulin, B., Lefebvre, G., Ibáñez, R., Jaramillo, C., Hernández, C., & Rand, A. S. (2001). Avian predation upon lizards and frogs in a neotropical forest understorey. *Journal of Tropical Ecology*, *17*, 21-40.

Poulin, B., Wright, S. J., Lefebvre, G., & Calderon, O. (1999). Interspecific synchrony and asynchrony in the fruiting phenologies of congeneric bird-dispersed plants in Panama. *Journal of Tropical Ecology*, *15*, 213-227.

Pruitt, K. D., Hewitt, D. G., Silvy, N. J., & Benn, S. (2008). Importance of native seeds in White-winged dove diets dominated by agricultural grains. *Journal of Wildlife Management*, *72*, 433-439.

Ramo, C., & Busto, B. (1993). Resource use by herons in a Yucatan wetland during breeding season. *Wilson Bulletin*, *105*, 573-586.

Rappole, J. H., Morton, E. S., Lovejoy, T. E., & Ruos, J. L. (1983). *Nearctic Avian Migrants in the Neotropics*. Washington DC: U.S. Department of the Interior Fish and Wildlife Service-World Wildlife Fund U.S.

Remsen Jr., J. V., Hyde, M. A., & Chapman, A. (1993). The diets of neotropical trogons, motmots, barbets and toucans. *Condor*, *95*, 178-192.

Remsen Jr., J. V., Stiles, F. G., & Scott, P. E. (1986). Frequency of arthropods in stomachs of tropical hummingbirds. *Auk*, *103*, 436-441.

Root, R. B. (1967). The niche exploitation pattern of the Blue-gray gnatcatcher. *Ecological Monographs*, *37*, 317-350.

Rowley, J. S., & Orr, R. T. (1965). Nesting and feeding habits of the White-collared Swift. *Condor*, *67*, 449-456.

Rylander, M. K., & Bolen, E. G. (1974). Feeding adaptations in whistling ducks (*Dendrocygna*). *Auk*, *91*, 86-94.

Safran, R. J., Colwell, M. A., Isola, C. R., & Taft, O. E. (2000). Foraging site selection by non-breeding White-faced Ibis. *Condor*, *102*, 211-215.

Sherry, T. W., & McDade, L. A. (1982). Prey selection and handling in two neotropical hover-gleaning birds. *Ecology*, *63*, 1016-1028.

Skutch, A. F. (1966). Life history notes on three tropical American cuckoos. *Wilson Bulletin*, *78*, 139-165.

Smith, A. C., & Nol, E. (2000). Wintering foraging behaviour and prey selection of the Semipalmated Plover in coastal Venezuela. *Wilson Bulletin*, *112*, 467-472.

Soave, G. E., Camperi, A. R., Darrieu, C. A., Cicchino, A. C., Ferretti, V., & Juarez, M. (2006). White-faced Ibis diet in Argentina. *Waterbirds*, *29*, 191-197.

Stephens, M. L. (1984). Interspecific aggressive behaviour of the polyandrous Northern Jacana (*Jacana spinosa*). *Auk*, *101*, 508-518.

Sullivan, S. M. P., Watzin, M. C., & Hession, W. C. (2006). Differences in the reproductive ecology of Belted Kingfishers (*Ceryle alcyon*) across streams with varying geomorphology and habitat quality. *Waterbirds*, *29*, 258-270.

Sutter, J., Martínez A., W. E., Oliva T., F., Oswaldo J., N., & Whitacre, D. F. (2001). Diet and hunting behaviour of the Crane Hawk in Tikal National Park, Guatemala. *Condor*, *103*, 70-77.

Swennen, C., & Yu, Y.-T. (2005). Food and feeding behaviour of the Black-faced Spoonbill. *Waterbirds*, *28*, 19-27.

Thompson, C. W., Donelan, E. R., Lance, M. M., & Edwards, A. E. (2002). Diet of Caspian Terns in Commencement Bay, Washington. *Waterbirds*, *25*, 78-85.

Tietje, W. D., & Teer, J. G. (1996). Winter feeding ecology of northern shovelers on freshwater and saline wetlands in South Texas. *Journal of Wildlife Management*, *60*, 843-855.

Ueng, Y.-T., Wang, J.-P., Hou, P.-C. L., & Perng, J.-J. (2009). Diet of Black-winged Stilt chicks in coastal wetlands of southwestern Taiwan. *Waterbirds*, *32*, 514-522.

Vanermen, N., Stienen, E. W. M., De Meulanaer, B., Van Ginderdeuren, K., & Degraer, S. (2009). Low dietary importance of polychaetes in opportunistic feeding Sanderlings *Calidris alba* on Belgian beeches. *Ardea*, *97*, 81-87.

Vehrencamp, S. L. (1978). The adaptive significance of communal nesting in Groove-billed anis (*Crotophaga sulcirostris*). *Behavioural Ecology and Sociobiology*, *4*, 1-33.

Velásquez, C. R., & Navarro, R. A. (1993). The influence of water depth and sediment type on the foraging behavior of Whimbrels. *Journal of Field Ornithology*, *64*, 149-157.

Villamagna, A. M., Murphy, B. R., & Trauger, D. L. (2010). Behavioural response of American Coots (*Fulica americana*) to Water Hyacinth (*Eichhornia crassipes*) in Lake Chapala, Mexico. *Waterbirds*, *33*, 550-555.

Visser, J. M., Vermillion, W. G., Evers, D. E., Linscombe, R. G., & Sasser, C. E. (2005). Nesting habitat requirements of the Brown Pelican and their management implications. *Journal of Coastal Research*, *212*, 27-35.

Weber, L. M., & Haig, S. M. (1997). Shorebird diet and size selection of nereid polychaetes in South Carolina coastal diked wetlands. *Journal of Field Ornithology*, *68*, 358-366.

Wehtje, W. (2003). The range expansion of the great-tailed grackle (*Quiscalus mexicanus* Gmelin) in North America since 1880. *Journal of Biogeography*, *30*, 1593-1607.

Wheelwright, N. T., Haber, W. A., Murray, K. G., & Guindon, C. (1984). Tropical fruit-eating birds and their food plants: a survey of a Costa Rica lower montane forest. *Biotropica*, *16*, 173-192.

Whitfield, D. P. (1990). Individual feeding specializations of wintering turnstone *Arenaria interpres*. *Journal of Animal Ecology*, *56*, 193-211.

Willard, D. E. (1985). Comparative feeding ecology of twenty-two tropical piscivores. *Ornithological Monographs*, *36*, 788-797.

Wunderle Jr., J. M. (1978). Territorial defense of a nectar source by a Palm warbler. *Wilson Bulletin*, *90*, 297-299.

Wunderle Jr., J. M. (1981). Avian predation upon *Anolis* lizards on Grenada, West Indies. *Herpetologica*, *37*, 104-108.

Zuria, I., & Mellink, E. (2005). Fish abundance and the 1995 nesting season of the Least Tern at Bahía de San Jorge, Northern Gulf of California, México. *Waterbirds*, *28*, 172-180.