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Natural and Cultural History of the Golfo Dulce Region, Costa Rica

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Gerhard Aubrecht (scientific editors)

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Due to the orographic formation of its interior and its humid climate, the Golfo Dulce Region is rich with biodiversity, containing very dense flora and fauna. After HOLDRIDGE (1971), the region was subdivided into different zones, including the tropical rainforest, the tropical wetland forest, and tropical premontane rainforest. The biogeographical situation in this area shows many similarities to the flora and fauna in the Amazon and the Colombian Chocó Region and serves as a land bridge with a valuable genetic base between North and South America. After unregulated seizure of land by agricultural settlers, lumberjacks, and large landowners in the 1940s and 1950s, regulated, state-subsidised settlement reform intended to support agricultural exports in the 1960s, and intensification of the livestock industry in the 1970s, primary and secondary forest reserves have shrunk to a minimum. The constant expansion of monocultures on new land has far-reaching consequences for the local ecosystem.

The conservation and sustainable use of tropical forests is established in the Forest Declaration, Convention on Climate Protection, and Convention on the Protection of Species, which demonstrate worldwide concern for these issues. As a regional example, in the 4,304.80 km^2 drainage basin, the ACOSA (Área de Conservación OSA), which covers an area spanning the Cantons Osa, Golfito und Corredores, aims to protect species diversity within the 17 game preserves, which are 44.7% covered by forest, through integration and an alliance with the Parques Nacionales, Vida Silvestres y Forestales (Fig. 2). The main sector of the Corcovado National Park on the Osa Peninsula covers 424 km^2 and the Piedras Blancas National Park covers 148 km^2. The altitude ranges from sea level to 745 m on the Osa Peninsula (Cerro Rincón and Cerro Mueller in the Fila Matajambre) and to 579 m in the Esquinas forest (Cerro Nicuesa). The Golfo Dulce Forest Reserve (592 km^2) was established between the two parks, thereby forming a natural forest corridor.

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The birds of La Gamba
Los pajaros de La Gamba

Graham Tebb

Abstract: Following an introduction describing the history of ornithological activity in La Gamba, the present article gives an annotated list of all species and, where possible, subspecies of bird reliably recorded in La Gamba, SW Costa Rica until the end of June 2008. The list essentially covers the gardens of the Tropical Research Station La Gamba and the Esquinas Rainforest Lodge; the primary and secondary forests adjacent to the Tropical Research Station La Gamba and the Esquinas Rainforest Lodge; the banks of the Rio Bonito and the Rio La Gamba; the agriculturally cultivated areas around the village of La Gamba and along the road between the Panamerican Highway and the Esquinas Rainforest Lodge; and the coast (by the Playa Josecito beach and by Golfito) with the mangroves of Golfito and the Rio Coto. The importance of the area is highlighted with reference to the range-restricted species and subspecies it harbours. The article briefly discusses the effects of deforestation, which is helping the spread of open-country species (and thus increasing the number of species recorded from the area) but posing a serious threat to the range-restricted forms that depend on forest for their survival.

Key words: birds, Costa Rica, La Gamba, biodiversity, vagrants, migration, range expansion, deforestation, habitat preference.

Resumen: Después de una introducción donde se describe la historia de las actividades ornitólogicas en La Gamba, el presente artículo entrega una lista de todas las especies y cuando es posible de las subespecies de aves registradas en La Gamba, sudoeste de Costa Rica, hasta el fin de junio de 2008. La lista incluye los jardines de la Estación de Investigación Tropical La Gamba y el Refugio Bosque Lluvioso Esquinas, como también los bosques primarios y secundarios adyacentes a ellos; las riberas del Río Bonito y del Río La Gamba; las áreas agrícolas alrededor de la villa de La Gamba y a lo largo del camino entre la vía Panamericana y el Refugio Bosque Lluvioso Esquinas; y la costa (por la playa Josecito y por Golfito) con los manglares de Golfito y el Río Coto. Se resalta la importancia del área por actuar como albergue para las especies y subespecies de rango restringido. El artículo discute brevemente los efectos de la deforestación, que ayuda a la dispersión de las especies de áreas abiertas (y por esto incrementa en número de especies encontradas en la zona) pero representa una seria amenaza para las formas de rango restringido que dependen del bosque para sobrevivir.

Palabras clave: aves, Costa Rica, La Gamba, biodiversidad, vagabundos, migración, rango de expansión, deforestación, preferencia de hábitat.

A brief history of birdwatching in La Gamba

Until the end of the 1990s, the birds of La Gamba had received relatively little attention and hardly any systematic ornithological work had been undertaken in the area. First sightings of species were "logged" in a copy of the Stiles & Skutch (1989) field guide to Costa Rica that was kept in the Tropical Research Station La Gamba, although only the year of the first sighting was noted with no information relating to the precise date and location. Furthermore, the names of the observers were not mentioned and no descriptions of the circumstances were included. The book disappeared from the Station, although the "records" had been previously copied into a PC-based database and became the "official" La Gamba list. Because of the scarcity of information relating to individual sightings, the author prefers not to include species from this list in the present summary unless there have been subsequent records. (The one exception, White-throated Magpie-Jay *Calocitta formosa* is justified because the species is completely unmistakable.) Species that have been "rejected" are included in a separate list.

From the end of January to the end of May 2001, the late Terry Krueger (University of Miami) came to La Gamba to study birds (see e.g. Krueger & Williams 2006). He mistnetted a large number of birds in the forest – and observed many more – and was able to add a large number of species to the La Gamba list (unfortunately no records survive of the birds he saw during his previous stays). Gradually La Gamba began to attract more visitors interested in birdwatching. Jim Zook

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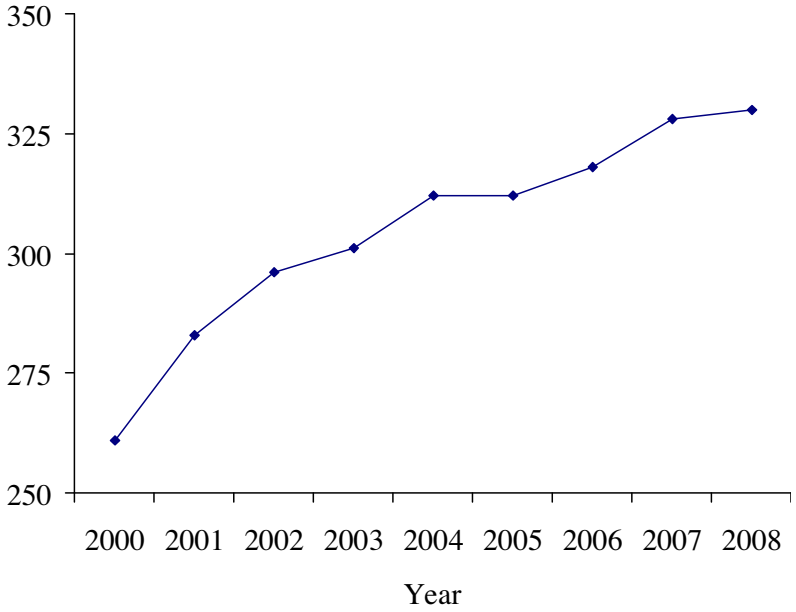

Fig. 1: Cumulative total number of species recorded from the area.

(Naranjo de Alajuela, Costa Rica) came regularly and kept systematic notes of his observations; Richard Garrigues (San Antonio de Belen, Heredia, Costa Rica) paid occasional visits and the British birdwatching company Birdquest included the Esquinas rainforest in its annual trips to Costa Rica, led initially by the late Paul Coopmans and in recent years by Matt Denton. In early 2004 BirdLife Austria organized a trip to Costa Rica, led by the author and Julio Enrique Sánchez, which spent several days in the Esquinas area. A large number of staff and students of Austrian natural history museums and universities have also visited La Gamba and several of them have undertaken projects relating to birds, during the course of which they recorded many additional species. Their notes have kindly been made available to the author during the preparation of the present work. Richard Garrigues' "Gone Birding" newsletter and his subsequent Web page devoted to rare birds in Costa Rica (http://www.angelfire.com/bc/gonebirding/rarebirds.mht) were valuable sources of further information. A full list of observers whose sightings are mentioned is given in Table 1.

Table 1: Observers

AF	Ágnes Farkas	MD	Matt Denton
AL	Armin Landmann	MM	Mike Mulligan
AS	Alfredo Scott	NS	Norbert Sauberer
AW	Anton Weissenhofer	PC	Paul Coopmans
BQ	Bob Quinn	PM	Paco Madrigal
BS	Benjamin Seaman	RD	Rolando Delgado
CS	Christian Schulze	RE	Roger Everhart
DR	David Roderus	RG	Richard Garrigues
FH	Florian Hofhansl	RS	Roy Sánchez Jimenez
GA	Gerhard Aubrecht	SE	Stefan Eberhard
GK	Georg Krieger	SS	Stefan Schneeweihs
GT	Graham Tebb	SW	Stephan Weigl
GW	Günther Wöss	TK	Terry Krueger
HF	Heather Frid	TS	Tom Sykes
HK	Hella Klausius	TW	Todd Ward
IR	Isabell Riedl	VM	Volker Mauerhofer
KE	Kevin Easley	WH	Werner Huber

The increased number of observers, coupled with a more systematic approach to the recording of sightings, has led to a rapid increase in the number of species known to occur in the area (see Fig. 1). At the end of the year 2000 the list stood at 261 species. In 2001, a total of 22 species were added; a further 13 species were identified in 2002, five in 2003, 11 in 2004, none in 2005 but six in 2006, a further ten in 2007 and two at the start of 2008. The list currently stands at 330 species (there are records for an additional 37 species that the author does not feel should be accepted, although some of the birds concerned would be expected to occur in the area) and as it is continuing to rise steadily it is probably far from complete.

Recent arrivals

The species recently added to the list – and by analogy those that can reasonably be expected to be recorded from the area in the near future – may be broken down into four major groups. Some (such as Northern Harrier *Circus cyaneus*, Killdeer *Charadrius vociferus*, Ruby-throated Hummingbird *Archilochus colubris*, Cinnamon Woodpecker *Celeus loricatus*, Brown-chested Martin *Progne tapera* and American Dipper *Cinclus mexicanus*, all of which have been recorded only once or twice in the area) are genuine vagrants to the southwestern lowlands of Costa Rica (Stiles & Skutch 1989, Ridgely & Gwynne 1992, Garrigues & Dean 2007). Others are rare or unobtrusive residents that are overlooked or under-recorded, possibly because they are (largely) restricted to habitats that have to date received comparatively little attention. A good example is the Mangrove Hummingbird *Amazilia boucardi*, which has not yet been recorded in the La Gamba area although it would be expected to occur in the coastal mangroves and is regularly reported from this habitat in the nearby Bosque del Río Tigre Lodge on the Osa Peninsula. Mangrove Hummingbird is one of the very few species endemic to Costa Rica and its distribution is restricted to mangroves along the Pacific coast (Birdlife International 2000).

A third group of species that have recently been added to the list or may be expected to be found in La Gamba in the future is comprised of northern migrants that pass through in a relatively brief period, such as certain waders and a number of songbirds. The Yellow-

billed Cuckoo *Coccyzus americanus* has only been recorded once from the area, although it must pass through frequently on migration. The numbers of waders on the list is surprisingly small: Wilson's Plover *Charadrius wilsonia* and Western Sandpiper *Calidris mauri* would be expected to be very common on migration and both Semipalmated *C. pusilla* and Least *C. minutus* Sandpipers should also occur. Increased observation of coastal areas during migration periods could well be rewarding.

Finally, a significant number of open-country species have recently reached the area from the south. In 1989 STILES & SKUTCH wrote that "Savanna Hawk [*Buteogallus meridionalis*], found from W Panama to C Argentina, will probably soon invade the Golfo Dulce lowlands, as have other open-country species following deforestation in recent years." Their prediction was proved correct on 15 Apr 2008, when the species was recorded for the first time in Costa Rica (by Jerry O'Donahoe, Sharleen Squier, Pat Gleason and Jeannie Berger) from rice fields south of Zancudo, slightly south of the area covered by the present list. Other species that have recently arrived in the area include Pearl Kite *Gampsonyx swainsonii*, Southern Lapwing *Vanellus chilensis*, Wattled Jacana *Jacana jacana*, Brown-throated Parakeet *Aratinga pertinax*, Rusty-margined Flycatcher *Myiozetes cayanensis*, Red-breasted Blackbird *Sturnella militaris* and Crested Oropendola *Psaracolius decumanus*. In all cases, the range expansions are thought to be the result of increasing deforestation (see SADER & JOYCE 1988, SÁNCHEZ-AZOFEIFA et al. 2001). Concomitantly, the ranges of a number of more northerly species seem to be expanding southwards: White-tailed Kite *Elanus leucurus* is now fairly regular in the La Gamba area and there have been two records of Brown Jay *Cyanocorax morio*. Several additional species have recently been sighted well south of their normal ranges and so could potentially reach La Gamba. Examples are Inca Dove *Columbina inca*, which has recently been recorded in Uvita, Turquoise-browed Motmot *Eumomota superciliosa* in Quepos, Hoffmann's Woodpecker *Melanerpes hoffmannii* and Rufous-naped Wren *Campylorhynchus rufinucha* in Dominical, Grayish Saltator *Saltator coerulescens* south of San Vito and Melodious Blackbird *Dives dives* in Sabalito (Jim Zook *in litt.* 2007).

Species and subspecies with restricted ranges

Although deforestation is clearly increasing the number of species recorded from the area (and thus raising the biodiversity), it poses a significant threat to the long-term survival of species that depend on the lowland rainforests of the "South Central American Pacific slope", one of the endemic bird areas of the world (EBA 021) identified by STATTERSFIELD et al. (1998). Of the fifteen range-restricted species that occur in EBA 021, ten have been recorded in the La Gamba area and eight of them (Charming Hummingbird *Amazilia decora*, Baird's Trogon *Trogon bairdii*, Fiery-billed Araçari *Pteroglossus frantzii*, Golden-naped Woodpecker *Melanerpes chrysauchen*, Black-hooded Antshrike *Thamnophilus bridgesi*, Riverside Wren *Thryothorus semibadius*, Black-cheeked Ant-Tanager *Habia atrimaxillaris* and Spot-crowned Euphonia *Euphonia imitans*) have healthy populations. Protection of the forests around the Golfo Dulce, including the Esquinas rainforest, is thus of vital importance for the continued existence of a number of species.

Furthermore, the Esquinas forest also hosts a number of range-restricted subspecies. The local races of Great Tinamou *Tinamus major castaneiceps*, Marbled Wood-Quail *Odontophorus gujanensis castigatus*, Gray-chested Dove *Leptotila cassini rufinucha*, Scaly-breasted Hummingbird *Phaeochroa cuvierii maculicauda*, Slaty-tailed Trogon *Trogon massena hoffmanni*, Red-rumped Woodpecker *Veniliornis kirkii neglectus*, Buff-throated Foliage-gleaner *Automolus ochrolaemus exsertus*, Long-tailed Woodcreeper *Deconychura longicauda typica*, Black-faced Antthrush *Formicarius analis hoffmanni*, Lesser Elaenia *Elaenia chiriquensis chiriquensis*, Blue-crowned Manakin *Pipra coronata velutina*, Scrub Greenlet *Hylophilus flavipes viridiflavus*, Black-bellied Wren *Thryothorus fasciatoventris melanogaster*, Scaly-breasted Wren *Microcerculus marginatus luscinia*, Buff-rumped Warbler *Phaeothlypis fulvicauda veraguensis*, Gray-headed Tanager *Eucometis penicillata stictothorax*, White-throated Shrike-Tanager *Lanio leucothorax melanopygius*, Golden-hooded Tanager *Tangara larvata franciscae*, Blue Dacnis *Dacnis cayana callaina*, Ruddy-breasted Seedeater *Sporophila minuta centralis*, Orange-billed Sparrow *Arremon aurantiirostris aurantiirostris* and Buff-throated Saltator *Saltator maximus intermedius* are all at least fairly common in the La Gamba area and have ranges that are confined to W Costa Rica and Panama.

Many other subspecies that occur in La Gamba are almost as restricted in distribution and several of these may on closer investigation turn out to represent valid biological species. A good example is provided by Cherrie's Tanager *Ramphocelus costaricensis*. This species is not mentioned by STATTERSFIELD et al. (1998) because it was generally held to be a subspecies of Scarlet-rumped Tanager *R. passerinii*. Cherrie's Tanager was initially described by CHERRIE (1891) as specifically distinct; genetic work ultimately demonstrated that this is indeed the case (HACKETT 1996).

Another case is Costa Rican Swift *Chaetura fumosa*, which was until recently considered a subspecies of the widespread Band-rumped Swift *C. spinicauda* (MARÍN 2000, see also MARÍN 1997, BANKS et al. 2002). Garden Emerald *Chlorostilbon assimilis* was long treated as a race of the widespread Blue-tailed Emerald *C. mellisugus* (indeed, BÜNDGEN 1999 still does so) but STILES (1996) gave reasons why it should be seen as specifically distinct (see also HOWELL 1993). And Orange-collared Manakin *Manacus aurantiacus* was formerly treated as a race of White-bearded Manakin *M. manacus* or of Golden-collared Manakin *M. vitellinus* (but see WETMORE 1972): the American Ornithologists' Union only decided in 1997 to separate the forms (see also BRUMFIELD & BRAUN 2001). All of these species are restricted to SW Costa Rica and W Panama and all are under threat from deforestation in the area.

List of birds observed in La Gamba 1996-2008

As these examples illustrate, the taxonomy of birds is a matter of much debate and no single taxonomic list is accepted by all. For reasons of simplicity the present list adheres to the most recent (2006) official list of the birds of Costa Rica (CALDERON et al. 2007), which in turn follows the taxonomy and nomenclature established by the American Ornithologists' Union (AMERICAN ORNITHOLOGISTS' UNION 1998 and supplements). Neither of these authorities includes subspecies but in an attempt to make the present list more useful to visiting ornithologists the author has inserted the subspecies in brackets after the scientific names. Subspecific identification was undertaken using the information in CLEMENTS (2007) and del HOYO et al. (1992-2007). To resolve uncertainties, several articles and standard monographs were consulted (WETMORE 1945, HAYMAN et al. 1986, CURSON et al. 1994, DUNN & GARRETT 1997, CLEERE & NURNEY 1998, TAYLOR & van PERLO 1998, JARAMILLO & BURKE 1999, CLEMENT & HATHAWAY 2000, BREWER & MACKAY 2001, FERGUSON-LEES & CHRISTIE 2001).

The present list contains all the species of bird reliably recorded in La Gamba until the end of June 2008. It essentially covers the following areas:-

- the gardens of the Tropical Research Station La Gamba and the Esquinas Rainforest Lodge;
- the primary and secondary forests adjacent to the Tropical Research Station La Gamba and the Esquinas Rainforest Lodge, including the Esquinas forest between the Lodge and the Playa Josecito beach;
- the banks of the Rio Bonito and the Rio La Gamba;
- the agriculturally cultivated areas around the village of La Gamba and along the road between the Panamerican Highway and the Esquinas Rainforest Lodge; and
- the coast (by the Playa Josecito beach and by Golfito) with the mangroves of Golfito and the Rio Coto.

Birds, especially migrants, naturally move between these different areas but many species nevertheless have particular habitat preferences. The information given in the list generally provides indications of the habitats in which the various species are most frequently found. Finally, it should be noted that the list is a working document. The author would be extremely grateful to receive reports of any sightings of species not included in the list or of those for which individual records are given, especially if they include full details of the sightings and any photographs or audio recordings.

Tinamidae (Tinamous)	
Great Tinamou *Tinamus major* (*castaneiceps*) Little Tinamou *Crypturellus soui* (*modestus*)	Both species are relatively common residents of the primary forest – Little Tinamou is commoner than Great – although they are more frequently heard than seen. Little Tinamou is also regularly recorded in the secondary forest around the La Gamba Research Station.
Anatidae (Swans, Ducks)	
Black-bellied Whistling-Duck (Fig. 2) *Dendrocygna autumnalis*	Although it has not yet been shown to breed in the Esquinas area, the Black-bellied Whistling-Duck is a moderately common winter visitor, occasionally seen on flooded areas by the approach road. It is surprising that no further species of duck has been reliably recorded from La Gamba.
Cracidae (Curassows, Guans)	
Gray-headed Chachalaca *Ortalis cinereiceps* Crested Guan (Fig. 3) *Penelope purpurascens* (*aequatorialis*) Great Curassow *Crax rubra* (*rubra*)	All three species of cracid are fairly common residents in the La Gamba area. The Gray-headed Chachalaca prefers open areas while the other two species are generally confined to primary forest.

Fig. 2: *Dendrocygna autumnalis* (Black-bellied Whistling-Duck)
Photo: N. Sauberer

Fig. 3: *Penelope purpurascens* (Crested Guan).
Photo: N. Sauberer

Odontophoridae (New World Quails)	
Marbled Wood-Quail *Odontophorus gujanensis* (*castigatus*)	A rare resident of primary forest, especially in slightly higher areas. Wood-quails are far more frequently heard than seen.
Podicipedidae (Grebes)	
Least Grebe *Tachybaptus dominicus* (*brachypterus*)	Generally fairly common in suitable habitat in Costa Rica. The La Gamba region does not have many shallow lakes and this may explain the scarcity of the species here: the only record relates to a single bird on the "Caiman Pond" in the Lodge gardens on 17 and 18 Jan 2008 (GA and SW).
Sulidae (Gannets, Boobies)	
Brown Booby *Sula leucogaster* (*etesiaca*)	A common resident in coastal areas.
Pelecanidae (Pelicans)	
Brown Pelican *Pelecanus occidentalis* (*californicus*)	A common resident along the coast, especially in the harbour of Golfito.
Phalacrocoracidae (Cormorants)	
Neotropic Cormorant *Phalacrocorax brasilianus* (*brasilianus*)	This species is a common resident of coastal areas and is also frequently found along the larger bodies of water in the La Gamba area.
Anhingidae (Darters/Anhingas)	
Anhinga *Anhinga anhinga* (*leucogaster*)	A moderately common resident of the coastal mangroves. It is likely that the Anhinga breeds in the area although this has yet to be proven.
Fregatidae (Frigatebirds)	
Magnificent Frigatebird *Fregata magnificens*	A common resident of coastal areas, occasionally seen well inland, for example over the clearings.
Ardeidae (Herons)	
Bare-throated Tiger-Heron *Tigrisoma mexicanum*	A rare resident of mangroves and inland bodies of water, occasionally seen also in flooded pastures.
Great Blue Heron *Ardea herodias* (*herodias*)	A fairly common winter visitor to the coast.
Great Egret *Ardea alba* (*egretta*) Snowy Egret *Egretta thula* (*thula*)	These two species are common residents of the La Gamba area. Both are to be found feeding in moist, cleared areas, such as those along the entrance road, as well as on the rivers and the coast. Their numbers are swelled in winter by migrants from further north.
Little Blue Heron *Egretta caerulea*	A common winter visitor, found in cleared areas, along rivers and on the coast.
Tricolored Heron *Egretta tricolor* (*ruficollis*)	A fairly common winter visitor to the coast.

Fig. 4: *Eudocimus albus* (White Ibis). Photo: N. Sauberer

Fig. 5: *Sarcoramphus papa* (King Vulture). Photo: C. Schulze

Reddish Egret *Egretta rufescens* (*rufescens*)	A rare winter visitor to Costa Rica's Pacific coast. GA and SW recorded one in flooded fields by the Tropical Research Station La Gamba in the morning of 30 Jan 2006; another (or more probably the same individual) was seen on the coast in the afternoon of the same day.
Cattle Egret *Bubulcus ibis* (*ibis*)	A very common resident, especially in cleared areas. Fairly common along the rivers. One of the most spectacular recent examples of avian colonization, the Cattle Egret was first recorded in Costa Rica in 1954. Since then its population has expanded dramatically (aided by deforestation) and it is now abundant throughout the country up to at least 2000m.
Green Heron *Butorides virescens* (*virescens*)	A common resident, seen in small numbers in moist, cleared areas, as well as on the rivers and in the coastal mangroves.
Yellow-crowned Night-Heron *Nyctanassa violacea* (pres. *violacea*, poss. *caliginis*)	A fairly common resident of the coastal mangroves. The population probably includes both residents and, from October to March, winter visitors.
Boat-billed Heron *Cochlearius cochlearius* (*panamensis*)	Presumably a rare resident of the coastal mangroves. One entered in the Lodge logbook in the year 1998 was the only definite record until 12 Feb 2007, when FH and SS saw a juvenile close to the "Caiman Pond" in the Lodge gardens. Regular visitors to the lodge report that a bird appeared at this site about four or five years ago and has been seen frequently since.
Threskiornithidae (Ibises**,** Spoonbills)	
White Ibis (Fig. 4) *Eudocimus albus*	A common resident, often seen along waterways and slightly less commonly in flooded fields and on the coast.
Roseate Spoonbill *Platalea ajaja*	A winter visitor, uncommonly seen in flooded fields and along the coast.
Ciconiidae (Storks)	
Wood Stork *Mycteria americana*	Formerly a "rare and erratic wanderer" to the area (Stiles & Skutch 1989) but now a fairly common resident, easily seen along waterways and on the coast.
Cathartidae (New World Vultures)	
Black Vulture *Coragyps atratus* (*brasiliensis*) Turkey Vulture *Cathartes aura* (resident *aura*; *septentrionalis* on migration)	Both species are abundant residents and can be seen soaring – often in large numbers – over all types of habitat. In addition, large flocks of Turkey Vultures pass through Costa Rica on migration between their breeding areas in N America and their wintering areas to the south.
King Vulture (Fig. 5) *Sarcoramphus papa*	The King Vulture is significantly less common but single birds are frequently seen soaring high above the forest or over cleared areas.
Accipitridae (Hawks**,** Eagles**,** Harriers)	
Osprey *Pandion haliaetus* (*carolinensis*)	A fairly common winter visitor to the coast, occasionally seen over the rivers in the area.

Gray-headed Kite *Leptodon cayanensis* (*cayanensis*)	A rare resident of the forest. AL reported seeing one on 5 Feb 2004, VM recorded one soaring over primary forest on 14 Nov 2006, NS and CS saw one (and on 25 Jan two together) over or close to the garden of the Tropical Research Station La Gamba from 25 to 28 Jan 2007 and on 24 June 2007 CS and IR observed one over the Valle Bonito.
Swallow-tailed Kite *Elanoides forficatus* (*yetapa*)	A common resident, frequently seen soaring over the forest and over cleared areas. The species is a partial migrant and highest numbers are seen from January to July.
Pearl Kite *Gampsonyx swainsonii* (*leonae*)	This recent arrival to Costa Rica (mentioned by Stiles & Skutch 1989 as possibly soon to be found in the country) is a rare visitor to cultivated areas. In Feb 2001 RE reported a bird perched on a wire at La Palma, just inland from the Golfo Dulce coast on the Osa Peninsula. KE and MM saw a pair by the Esquinas entrance road on 23 March 2004. MD saw one from about 10-15 km north of the entrance road in July 2006, IR observed one over the cultivated area by La Gamba on 5 July 2007 and JZ saw one in the same area on 8 Sept 2007.
White-tailed Kite *Elanus leucurus* (*majusculus*)	Apparently relatively uncommon over the agricultural land around La Gamba and the Tropical Research Station La Gamba. The species would be expected to be more common in this habitat. It was first recorded from Costa Rica in 1958; the first record from the La Gamba area dates from 1998.
Double-toothed Kite *Harpagus bidentatus* (*fasciatus*)	JZ reported two individuals on 29 Mar 2002, one soaring over the hills behind Golfito and one following a troop of White-faced Capuchin monkeys along the La Gamba – Golfito road. GK recorded one in Apr 2003 and VM saw one on 5 Dec 2006; one was photographed by CS and IR on 27 June 2007. It is surprising that the species has not been reported more often as it is generally common within its wide distribution range.
Northern Harrier *Circus cyaneus* (*hudsonius*)	A rare winter visitor. One seen overhead by TK in 2001 and one seen by NS quartering over the agricultural areas on 28 Jan 2002.
Tiny Hawk *Accipiter superciliosus* (*fontanieri*)	An immature bird perched high at the edge of the canopy near the Lodge was seen by RG on 11 Apr 2001. The species is generally thought to be resident so it is either overlooked in the La Gamba area or, as seems more likely, the individual observed was a wandering bird.
Sharp-shinned Hawk *Accipiter striatus* (pres. *velox*)	A rare winter visitor. One was caught by TK on 15 Feb 2001, GK saw one in 2003 and AL reported one on 7 Feb 2004. It seems likely that this inconspicuous species is under-recorded.
Barred Hawk *Leucopternis princeps*	One seen by GK in May 2003 by the Rio Bonito was presumably a wandering bird from the higher elevations where the species normally occurs.
White Hawk *Leucopternis albicollis* (*costaricensis*)	A fairly common and conspicuous resident of the primary forest, frequently seen soaring over the canopy, especially in mid-morning. In early 2007 a nest was discovered above the Rainforest Lodge near the "Fila Trail".
Gray Hawk *Buteo nitidus* (res. *costaricensis*, in winter prob. also *plagiata*)	A rare but possibly overlooked resident and winter visitor.
Roadside Hawk *Buteo magnirostris* (*petulans*)	A common and conspicuous resident of open country, frequently seen perched close to the entrance road.
Broad-winged Hawk *Buteo platypterus* (*platypterus*)	A common migrant, seen in numbers in October/November and again in March/April. Some birds may occasionally overwinter in the area.
Short-tailed Hawk *Buteo brachyurus* (*fuliginosus*) Swainson's Hawk *Buteo swainsoni*	These two species are both regularly seen on migration between their northern breeding areas and their wintering areas to the south. The Short-tailed Hawk is common on passage; Swainson's Hawk appears to be much less so.
Black Hawk-Eagle *Spizaetus tyrannus* (*serus*)	MD saw an adult in display flight over the Lodge area on 19 July 2006.
Ornate Hawk-Eagle *Spizaetus ornatus* (*vicarius*)	One noted in the Lodge logbook in 1998 and one seen by GK in primary forest in May 2003. At best an irregular visitor.
Falconidae (Falcons**,** Caracaras)	
Barred Forest-Falcon *Micrastur ruficollis* (*interstes*) Collared Forest-Falcon *Micrastur semitorquatus* (*naso*)	Both species of Forest-Falcon are fairly common though inconspicuous permanent residents of the primary forest.
Crested Caracara *Caracara cheriway* (*audubonii*)	A common resident, frequently seen around the pastures along the entrance road.

Yellow-headed Caracara *Milvago chimachima* (*cordata*)	A common resident, frequently seen around the pastures along the entrance road and occasionally on the coast. The species was first recorded in Costa Rica in 1973 and has been expanding its range steadily as a result of deforestation.
Laughing Falcon *Herpetotheres cachinnans* (*cachinnans*)	A common resident, frequently seen around the pastures along the entrance road.
Peregrine Falcon *Falco peregrinus* (*anatum*)	On 17 Jan 2008 SW observed a juvenile or sub-adult female hunting over the rice fields. The species is known to be uncommon in winter in the Pacific lowlands.
Rallidae (Rails, Crakes)	
White-throated Crake *Laterallus albigularis* (*albigularis*) Gray-breasted Crake *Laterallus exilis*	Common (White-throated Crake) and fairly common (Gray-breasted Crake) permanent residents of moist areas in clearings, especially along the entrance road.
Gray-necked Wood-Rail *Aramides cajanea* (*cajanea*)	A rare resident of moist areas with long grass, especially along the entrance road.
Paint-billed Crake *Neocrex erythrops* (*olivascens*)	A dead bird was found by RS in the morning of 17 Feb 2007 on the path between La Gamba and the Tropical Research Station. The skin is housed in the bird collection of the National Museum in San José. Many authorities do not accept the finding of dead birds as justification for including species on a list but the AOU does – see Banks et al. (2007), which describes the acceptance of Intermediate Egret *Mesophoyx intermedia* onto the AOU list based on the finding of a dead bird in Alaska (Lorenz & Gibson 2007). The Paint-billed Crake was unknown from the Pacific side of Costa Rica until 6 April 2004, when MD found one in a ditch by the Chacarita Road. There have been several subsequent sightings, suggesting that the species may be expanding its range.
Purple Gallinule *Porphyrio martinica*	A fairly common permanent resident of flooded areas in clearings, especially along the entrance road.
Charadriidae (Plovers, Lapwings)	
Southern Lapwing *Vanellus chilensis* (*cayennensis*)	This southern species was first recorded in Costa Rica in 1993 (Sánchez et al. 1998). In June 2004 RD saw five flying across the entrance road, ca 500 m from the village of La Gamba. VM saw four close to the entrance road on 16 Nov 2006; one bird was at the same site six days later. On 21 June 2008 RS reported that three birds had been present in Valle Bonito for the past month and on 29 June 2008 the same observer saw six individuals flying over the village of La Gamba.
Black-bellied Plover *Pluvialis squatarola* Semipalmated Plover *Charadrius semipalmatus*	These visitors from north America are commonly found on the coast in winter; the Semipalmated Plover occurs in greater numbers than the Black-bellied Plover although both species are readily seen. Surprisingly, there have not yet been any records of Wilson's Plover *Charadrius wilsonia* from the area, presumably reflecting the relatively poor ornithological coverage of the mudflats in winter.
Killdeer *Charadrius vociferus* (*vociferus*)	VM reported one in flooded fields by the entrance road on 7 Dec 2006.
Haematopodidae (Oystercatchers)	
American Oystercatcher *Haematopus palliatus* (*palliatus*)	A rare visitor to the coast in winter.
Jacanidae (Jacanas)	
Northern Jacana *Jacana spinosa* (*spinosa*)	A common permanent resident of moist areas in clearings, especially along the entrance road.
Wattled Jacana *Jacana jacana* (*hypomelaena*)	An adult was seen among Northern Jacanas in a newly-planted rice field by the Tropical Research Station La Gamba by RG on 10 Apr 2001. A further bird, again an adult, was seen in the same rice fields by CS and NS on 28 Jan 2007. Presumably the same individual was at the same site on 23-24 Feb 2007 (RG and TS) and on 26 Feb (NS). Sightings in Costa Rica of this southern counterpart of the Northern Jacana are increasing as the forest to the south is cleared.
Scolopacidae (Waders)	
Spotted Sandpiper *Actitis macularia*	A common winter visitor to the coast and to the various streams and rivers in the area. Probably the commonest wader wintering in the La Gamba area.
Solitary Sandpiper *Tringa solitaria* (pres. both *cinnamomea* and *solitaria*)	Moderately common in winter, found (usually singly) both in flooded pastures along the entrance road and on the various streams and rivers in the area.

Fig. 6: *Numenius phaeopus* (Whimbrel) and *Tringa semipalmata* (Willet). Photo: M. Ringler

Greater Yellowlegs *Tringa melanoleuca*	A fairly common winter visitor to the coast and to the various streams and rivers in the area. The related Lesser Yellowlegs *T. flavipes* has yet to be recorded from La Gamba.
Willet (Fig. 6) *Tringa semipalmata* (*inornatus*) Whimbrel (Fig. 6) *Numenius phaeopus* (*hudsonicus*) Marbled Godwit *Limosa fedoa* (*fedoa*) Ruddy Turnstone *Arenaria interpres* (*morinella*)	These four species breed in North America and winter in good numbers along the Pacific Coast of Central America and further south. Willet and Whimbrel are very common on the beaches and in muddy areas from August / September until about early May, with some individuals, presumably first-year birds, remaining throughout the year. Ruddy Turnstone is found in smaller numbers and generally in rocky parts of the coastline, while Marbled Godwit is a much rarer but still regular visitor to all coastal areas.
Sanderling *Calidris alba*	Presumably common along the shoreline during migration (mid-August to October and mid-March to April), with occasional individuals remaining in the area in winter. The only definite record is of a wintering bird: CS reported one on 27 Jan 2007 on the beach by Zancudo. Surprisingly, no other calidrids have been reported from the area: Western Sandpiper *C. mauri* would be expected to be very common and both Semipalmated *C. pusilla* and Least *C. minutus* Sandpipers should also occur.
Wilson's Snipe *Gallinago delicata*	A rare (though probably largely overlooked) winter visitor, typically found in flooded meadows.
Laridae (Gulls)	
Laughing Gull *Larus atricilla* (*megalopterus*)	Very common along the coast at all times of the year. The species is not known to breed in Costa Rica and most birds are in first or second calendar-year plumage.
Sternidae (Terns)	
Royal Tern *Thalasseus maximus* (*maximus*) Sandwich Tern *Thalasseus sandvicensis* (*acuflavidus*)	Both species are common along the coast throughout the year, with Royal Terns generally outnumbering Sandwich Terns. Numbers increase during migration and in winter; birds seen in summer are non-breeders.
Columbidae (Pigeons, Doves)	
Rock Pigeon *Columba livia* (escaped domestic birds)	Feral birds are fairly common in the cleared areas opposite the Tropical Research Station La Gamba and in all settlements.
Pale-vented Pigeon *Patagioenas cayennensis* (*pallidicrissa*)	This common resident of open country is frequently seen in the agricultural areas along the entrance road.
Red-billed Pigeon *Patagioenas flavirostris* (*minima*)	A further resident of open country, formerly rare in the Pacific SW but becoming more common as a result of increasing deforestation.
Short-billed Pigeon *Patagioenas nigrirostris*	A common resident of primary forest, also seen in partially cleared areas.
Plain-breasted Ground-Dove *Columbina minuta* (*elaeodes*)	The only record comes from Apr 2002, when PC reported small numbers in the open country. The species is known to be locally common in the deforested lowlands of the Coto region E of the Golfo Dulce (Stiles & Skutch 1989) so it is surprising that it has not been seen more often in the La Gamba area.

Fig. 7: *Brotogeris jugularis* (Orange-chinned Parakeet). Photo: N. Sauberer

Fig. 8: *Pulsatrix perspicillata* (Spectacled Owl). Photo: W. Huber

Ruddy Ground-Dove *Columbina talpacoti* (*rufipennis*)	An abundant resident of cleared areas, frequently seen in gardens, along the edges of roads or in villages.
Blue Ground-Dove *Claravis pretiosa* White-tipped Dove *Leptotila verreauxi* (*verreauxi*)	Permanent residents of cleared areas and areas of secondary growth as well as in riverine forests, although both avoid the interior of evergreen forests. The White-tipped Dove is more conspicuous than the shyer Blue Ground-Dove.
Gray-headed Dove *Leptotila plumbeiceps* (*plumbeiceps*)	TK netted one on 8 May 2001.
Gray-chested Dove *Leptotila cassini* (*rufinucha*) Ruddy Quail-Dove *Geotrygon montana* (*montana*)	These two species are all essentially confined to well forested areas. The Gray-chested Dove is fairly common and readily heard, even if seeing it can prove more difficult. The Ruddy Quail-Dove is typically encountered when it flushes from trails.
Psittacidae (Parrots)	
Crimson-fronted Parakeet *Aratinga finschi*	To the author's knowledge, this species was not recorded from the La Gamba area before 2004, although it was regularly observed in the zona sur from as early as 1990 (JZ). On 9 Feb 2004 AL reported two birds by the stream behind the Tropical Research Station La Gamba and on 24 Feb 2004 GT saw a flock of 12 birds over the primary forest. Since then, the population in SW Costa Rica has risen dramatically (as a result of deforestation) and the Crimson-fronted Parakeet is now commonly seen over the agricultural areas and the forest.
Brown-throated Parakeet *Aratinga pertinax* (*ocularis*)	This species is an extremely recent colonizer from NW Panama, first recorded in Costa Rica in 1996 (Sánchez et al. 1998). It is found in cleared areas from NC Brazil through Venezuela and E Colombia to W Panama and its range is expanding rapidly as a result of human activities; it is now common in the SW lowlands of Costa Rica and can frequently be seen along the entrance road. To the author's knowledge the species arrived in this area in the year 2000 or 2001: in March 2001 PC reported that birds were "all over the place along the entrance road."
Orange-chinned Parakeet (Fig. 7) *Brotogeris jugularis* (*jugularis*)	This species' preferred habitat is dry open country with scattered trees, so the Orange-chinned Parakeet has benefited from deforestation. It is the most common parrot in the cultivated area of La Gamba and can be seen almost daily in the gardens.
Brown-hooded Parrot *Pionopsitta haematotis* (*haematotis*)	One of the rarer parrots in the La Gamba area, this species is strictly a forest canopy bird and avoids open country. The records appear to be concentrated in the winter months, possibly reflecting post-breeding dispersal.
Blue-headed Parrot *Pionus menstruus* (*rubrigularis*)	This species is more dependent on forests than the Orange-chinned Parakeet but regularly feeds in agricultural areas and can commonly be seen in small groups in the cultivated areas of La Gamba and sometimes in the gardens.

White-crowned Parrot *Pionus senilis*	A moderately common resident of primary and secondary forest, frequently observed in the clearings.
Red-lored Parrot *Amazona autumnalis* (*salvini*)	This species prefers forest edges and partly deforested areas, where it is common, e.g. breeding in isolated trees along the entrance road. It is less frequently encountered in primary forests.
Mealy Parrot *Amazona farinosa* (*virenticeps*)	A species of wet evergreen lowland forests, fairly common in the Esquinas forest. Mealy Parrots may be seen in the gardens when ripe fruits are available and are regularly seen flying overhead in the morning.
Cuculidae (Cuckoos)	
Squirrel Cuckoo *Piaya cayana* (*thermophila*)	A common and conspicuous resident of forested and lightly forested areas.
Yellow-billed Cuckoo *Coccyzus americanus*	One seen by the Rio Esquinas on 10 Apr 2002 by PC.
Mangrove Cuckoo *Coccyzus minor*	There are only two records from the area covered by the present list: one was caught in mistnets by TK on 15 Mar 2001 and one was seen in a roadside tree by the Tropical Research Station La Gamba on 23 Feb 2007 by TW. In addition, MD found one by Chacarita (on the road to Rincon and Puerto Jimenez) in March 2005.
Striped Cuckoo *Tapera naevia* (*excellens*)	A common permanent resident of cleared areas, easily seen or heard along the entrance road.
Smooth-billed Ani *Crotophaga ani*	An abundant permanent resident of cleared areas. The species was first recorded in Costa Rica in 1931 and can now be seen throughout the S Pacific slope. Flocks are found in scrubby areas and pastures, often together with livestock.
Strigidae (Typical Owls)	
Spectacled Owl (Fig. 8) *Pulsatrix perspicillata* (*saturata*)	A widespread, although rare, resident of forested areas. For the past several years a pair has been resident in the clearing of the Lodge and it is usually possible to see at least one bird at dawn or shortly after dusk.
Black-and-white Owl *Ciccaba nigrolineata*	On 1 July 2007, CS and DR heard two birds calling in the primary forest behind the Tropical Research Station La Gamba. The species was first seen (and photographed) near the Tropical Research Station La Gamba on 10 July 2007 (IR and BS). Stiles & Skutch (1989) note that the Black-and-white Owl is "not known but expected in Pacific lowlands south of Quepos."
Striped Owl *Pseudoscops clamator* (*forbesi*)	Known to be fairly common in the drier areas further north along the Pacific coast of Costa Rica. On 10 July 2007 one was photographed on roadside wires opposite the Tropical Research Station La Gamba (IR and BS).
Caprimulgidae (Nightjars)	
Short-tailed Nighthawk *Lurocalis semitorquatus* (*noctivagus*) Lesser Nighthawk *Chordeiles acutipennis* (res. *littoralis*, pres. *texensis* in winter) Common Pauraque *Nyctidromus albicollis* (*intercedens*)	The three species of Nightjar found in the La Gamba area are all permanent residents – other species from North America have yet to be recorded from the area, although several have been found at the nearby Bosque del Río Tigre Lodge on the Osa Peninsula. The resident species are often to be seen hawking insects at dusk over cleared areas, especially over the pastures along the entrance road. In addition, the most common species, the Common Pauraque, is frequently flushed from roosts on the ground near the edge of the forest. (It should be noted that it is unclear whether individual birds are actually resident: it is possible that the breeding birds migrate south in the winter months to be "replaced" by migrants from more northerly breeding areas.)
Nyctibiidae (Potoos)	
Common Potoo *Nyctibius griseus* (*panamensis*)	A rare permanent resident of the cleared areas along the entrance road.
Apodidae (Swifts)	
White-collared Swift *Streptoprocne zonaris* (*bouchellii*)	Fairly common over forests and clearings throughout the year.
Costa Rican Swift *Chaetura fumosa*	The commonest of the swifts in the area, seen over all habitats except the sea.
Lesser Swallow-tailed Swift *Panyptila cayennensis* (*cayennensis*)	The least common of the three species of swift, rarely seen over forests and clearings. RG reported a pair along the entrance road on 10 Apr 2001.

Fig. 9: *Amazilia decora* (Charming Hummingbird). Photo: N. Sauberer

Fig. 10: *Trogon bairdii* (Baird's Trogon). Photo: N. Sauberer

Fig. 11: *Momotus momota* (Blue-crowned Motmot). Photo: P. Los

Trochilidae (Hummingbirds)	
Bronzy Hermit *Glaucis aenea* Band-tailed Barbthroat *Threnetes ruckeri* (*ventosus*) Long-billed Hermit *Phaethornis longirostris* (*cephalus*) Stripe-throated Hermit *Phaethornisstriigularis* (*saturatus*)	The four species of Hermit recorded from the La Gamba area prefer the understorey of tropical rainforests and dense second growth. Nevertheless, they are all regularly seen in the garden of the Tropical Research Station La Gamba, where they are attracted to flowering *Heliconias* and *Costas*. The commonest species are Bronzy and Long-billed Hermits; the other two species are slightly less frequently seen.
White-tipped Sicklebill *Eutoxeres aquila* (*salvini*) Scaly-breasted Hummingbird *Phaeochroa cuvierii* (*maculicauda*)	These two species are moderately common residents of forested areas.
Violet Sabrewing *Campylopterus hemileucurus* (*mellitus*)	The Violet Sabrewing breeds at higher elevations but descends to lower altitudes in winter, when it is occasionally observed in the primary forest or even in the gardens. TK mistnetted three in 2001: one on 13 Feb, one on 10 March and one on 13 March.
White-necked Jacobin *Florisuga mellivora* (*mellivora*)	Common and conspicuous throughout the year, especially in primary and secondary forest and in riverine forest. Frequently enters the gardens.
Violet-headed Hummingbird *Klais guimeti* (*merritti*)	Occasionally reported from within the forest or in the gardens of the Lodge and the Tropical Research Station La Gamba. The species appears to be rarer during the breeding season, implying that some individuals disperse post-breeding, reaching the La Gamba area from middle elevations.
White-crested Coquette *Lophornis adorabilis*	A group of students of the University of Vienna (FH, HK, SS and GW) saw a male White-crested Coquette on 2 Feb 2007 on the border of an area of secondary forest in the Valle Bonito. The sighting represents the only record of the species from La Gamba.
Garden Emerald *Chlorostilbon assimilis*	A fairly common permanent resident of the forest, frequently found in the gardens.
Violet-crowned Woodnymph *Thalurania colombica* (*venusta*)	One of the most frequently seen hummingbirds in the forest.
Blue-throated Goldentail *Hylocharis eliciae* (*eliciae*)	TK trapped a total of 32 in mistnets from 8 Feb to 24 May 2001, GK observed one in 2003, NS saw one in the garden of the Tropical Research Station La Gamba in Feb 2007 and IR mistnetted 5 birds at the forest edge between 1 and 4 Aug 2007. Otherwise there are no records from the area. It seems likely that the species' habitat is not well explored or the bird is a sporadic guest to the forest.
Charming Hummingbird (Fig. 9) *Amazilia decora*	Probably the commonest hummingbird in the lodge gardens, especially around the flowering *Ingas*. Also frequently observed in areas of secondary forest.
Snowy-bellied Hummingbird *Amazilia edward* (*niveoventer*)	Two birds in mistnets, one on 9 May and one on 15 May, in 2001 (TK) represent the only records from the area. Stiles & Skutch (1989) note that the species appears to be absent from the wetter Golfo Dulce district, so these two individuals were presumably post-breeding wanderers.

Rufous-tailed Hummingbird *Amazilia tzacatl* (*tzacatl*)	One of the most common hummingbirds outside the forest. It easily adapts to man-made habitats including banana and coffee plantations, roadsides and gardens.
Purple-crowned Fairy *Heliothryx barroti*	On 6 Feb 2002 NS watched a female in the garden of the Tropical Research Station La Gamba and in Jan 2004 AL reported scattered sightings, including a male on 8 Jan. These remained the only records until 2007, when the species was frequently observed in the gardens (by NS in Jan and Feb) and occasionally netted in the forest (by IR in Aug). The Purple-crowned Fairy is generally conspicuous and easy to identify so it is hard to explain the apparent gap in records. Maybe the species is a sporadic visitor to the area.
Long-billed Starthroat *Heliomaster longirostris* (*longirostris*)	Another hummingbird that appears sporadically in the La Gamba area. After a sighting in 1998, on which no further details are available, TK netted three on 11 May 2001, PC saw one by the Rio Esquinas in April 2003, AL possibly saw one briefly in Feb 2004, VM recorded one in the Lodge garden on 12 Dec 2006, NS observed one repeatedly from 24 Jan until the end of Feb 2007 feeding on *Erythrina* in the gardens and JZ reported one in scrubby pasture along the entrance road on 8 Sept 2007.
Ruby-throated Hummingbird *Archilochus colubris*	A very rare winter visitor from its breeding areas in North America. AL netted a female in primary forest on 2 Feb 2004.
Trogonidae (Trogons**,** Quetzals)	
Baird's Trogon (Fig. 10) *Trogon bairdii* Violaceous Trogon *Trogon violaceus* (*concinnus*) Black-throated Trogon *Trogon rufus* (*tenellus*) Slaty-tailed Trogon *Trogon massena* (*hoffmanni*)	All four species are relatively common in the primary forest around La Gamba, with Baird's and Slaty-tailed Trogons apparently more common than Violaceous and Black-throated Trogons. The former two species are also occasionally seen on feeding stations in the gardens of the Lodge and the Tropical Research Station la Gamba.
Motmotidae (Motmots)	
Blue-crowned Motmot (Fig. 11) *Momotus momota* (*lessonii*)	A common permanent resident of primary and secondary forest. Occasionally seen on feeding stations in the gardens of the Lodge and the Tropical Research Station la Gamba.
Alcedinidae (Kingfishers)	
Ringed Kingfisher *Ceryle torquata* (*torquata*)	A common permanent resident of the various waterways in the area, easily seen in the coastal mangroves.
Belted Kingfisher *Ceryle alcyon*	This species is a winter visitor from its more northerly breeding areas. Although fairly rare on inland waterways, it is moderately common along the coast.
Amazon Kingfisher *Chloroceryle amazona* Green Kingfisher *Chloroceryle americana* (*septentrionalis*) American Pygmy-Kingfisher *Chloroceryle aenea* (*aenea*)	The final three species of kingfisher are resident in the area. All are essentially tied to water and are thus found along rivers and streams or on the coast, although Amazon and Pygmy Kingfishers may sometimes be seen perched in the forest. The American Pygmy-Kingfisher is the least common (or maybe the most inconspicuous) and the Green Kingfisher by far the commonest of the three.
Bucconidae (Puffbirds)	
White-necked Puffbird *Notharchus macrorhynchos* (*hyperrynchus*)	One recorded from around La Gamba in 1996, although unfortunately no further details are known. The Birdquest trip to Costa Rica reported one by the Lodge in Apr 2003, although the bird was not seen by the group leader (PC). More recently, VM saw and heard one in primary forest close to the Playa Josecito on 27 Nov 2006 and GA, WH and SW saw and photographed one by the Macaw aviary on 21 Jan 2008.
White-whiskered Puffbird *Malacoptila panamensis* (*panamensis*)	A fairly common, though inconspicuous, resident of primary or old secondary forest. Occasionally seen following army-ant swarms.
Galbulidae (Jacamars)	
Rufous-tailed Jacamar (Fig. 12) *Galbula ruficauda* (*melanogenia*)	A common resident of primary forest, nesting in banks. It prefers forest gaps, edges, galleries and semi-open areas.
Ramphastidae (Toucans)	
Fiery-billed Araçari *Pteroglossus frantzii* Chestnut-mandibled Toucan (Fig. 13) *Ramphastos swainsonii* (*swainsonii*)	Common residents of primary forest. Both species may also be seen feeding in areas of secondary growth or in the gardens, although the Fiery-billed Araçari enters the gardens less frequently than the Chestnut-mandibled Toucan.
Picidae (Woodpeckers)	
Olivaceous Piculet *Picumnus olivaceus* (*flavotinctus*)	A common resident of dryer forested areas and areas with secondary growth, even occurring in the shrubs along the entrance road.

Fig. 12: *Galbula ruficauda* (Rufous-tailed Jacamar). Photo: W. Huber

Golden-naped Woodpecker *Melanerpes chrysauchen*	The species is commonly found in humid forest, where it generally sticks to the canopy and middle levels, and is also a frequent visitor into clearings, such as the lodge garden.
Red-crowned Woodpecker *Melanerpes rubricapillus* (*rubricapillus*)	Common and conspicuous in open forest and in clearings, such as the gardens.
Smoky-brown Woodpecker *Veniliornis fumigatus* (*sanguinolentus*)	JZ reported two in riparian cane thickets on 8 Sept 2007: one along the road to Piedras Blancas NP about 3 km west of La Gamba and the other along the entrance road. According to Stiles & Skutch (1989) the species is absent from the wetter Golfo Dulce lowlands.
Red-rumped Woodpecker *Veniliornis kirkii* (*neglectus*)	Rare in the area: JZ observed two birds in an *Inga* tree on 25 Feb 2004 in forest bordering a stream close to the main road between Ciudad Neilly and Paso Canoas; the same observer also saw a single Red-rumped Woodpecker along the entrance road on 9 Aug 2006. Most recently, VM reported one in a fruiting tree in secondary forest by the Ocelot Trail on 28 Nov 2006.
Rufous-winged Woodpecker *Piculus simplex*	The species is common in the Esquinas forest, where it occasionally accompanies mixed-species flocks. It is particularly easy to see in the area around the Esquinas lodge: a pair is often to be found around the edge of the clearing.
Cinnamon Woodpecker *Celeus loricatus* (pres. *diversus*)	RD reported one in June 2004 near the end of the Ocelot Trail where it leaves primary forest and enters an area of second growth. This represents the first sighting of the species on the Pacific side of the country.
Lineated Woodpecker *Dryocopus lineatus* (*lineatus*) Pale-billed Woodpecker *Campephilus guatemalensis* (*guatemalensis*)	The two largest woodpeckers of the La Gamba area are both found largely in tall, primary forest, although both may also be recorded in tall trees in partially cleared areas, such as the gardens. The Lineated Woodpecker is the commoner of the two and more readily enters the gardens
Furnariidae (Ovenbirds)	
Pale-breasted Spinetail *Synallaxis albescens* (*latitabunda*)	Common and conspicuous in moist agricultural areas, for example in the rice fields along the entrance road.
Slaty Spinetail *Synallaxis brachyura* (*nigrofumosa*)	Apparently a rare resident of areas of young secondary growth and of thickets in pastures. Can occasionally be observed in scrubby areas along the entrance road.
Striped Woodhunter *Hyloctistes subulatus* (*virgatus*)	A fairly common resident of the primary forest, usually to be found in mixed-species flocks.
Buff-throated Foliage-gleaner *Automolus ochrolaemus* (*exsertus*)	Common in the primary forest, usually found in mixed-species flocks.
Plain Xenops *Xenops minutus* (*ridgwayi*)	A fairly common resident of humid forest, often found in mixed-species flocks.
Tawny-winged Woodcreeper *Dendrocincla anabatina* (*anabatina*)	A common resident of humid forest.
Long-tailed Woodcreeper *Deconychura longicauda* (*typica*)	An occasional member of mixed-species flocks in the primary forest, usually but not invariably at higher elevations.
Wedge-billed Woodcreeper *Glyphorynchus spirurus* (*pectoralis*)	Frequently found in forests and in adjoining secondary growth and gardens.

Fig. 13: *Ramphastos swainsonii* (Chestnut-mandibled Toucan). Photo: N. Sauberer

Fig. 14: *Xiphorhynchus lachrymosus* (Black-striped Woodcreeper). Photo: C. Schulze

Fig. 15: *Thamnophilus bridgesi* (Black-Hooded Antshrike). Photo: N. Sauberer

Northern-barred Woodcreeper *Dendrocolaptes sanctithomae* (*hesperius*)	A bird of the primary forest, frequently found (usually singly) in association with army ant swarms.
Cocoa Woodcreeper *Xiphorhynchus susurrans* (*costaricensis*)	This woodcreeper is common in the primary forest, where it sometimes associates with mixed-species flocks. It also frequently enters secondary forests and occasionally even comes into the gardens.
Black-striped Woodcreeper (Fig. 14) *Xiphorhynchus lachrymosus* (*lachrymosus*)	A common species of primary and secondary forest, occasionally recorded in the gardens.
Streak-headed Woodcreeper *Lepidocolaptes souleyetii* (*compressus*)	Moderately common in primary and secondary forest as well as in the gardens.
Brown-billed Scythebill *Campylorhamphus pusillus* (*borealis*)	A rare bird of the primary forest, probably somewhat more common in hilly areas. RG reported one on 12 Apr 2001, GK twice saw single birds in 2003, AL recorded one on 12 Jan 2004 and AF saw one repeatedly in Aug 2006, on several occasions obtaining good photographs.
Thamnophilidae (Antbirds)	
Great Antshrike *Taraba major* (*obscurus*)	A rare (or possibly overlooked) resident of secondary growth, usually found in thickets, e.g. along the entrance road or in the pastures.
Barred Antshrike *Thamnophilus doliatus* (*intermedius*)	A fairly common resident of low thickets in areas of secondary growth.
Black-hooded Antshrike (Fig. 15) *Thamnophilus bridgesi*	Frequent in shrubby thickets and vine tangles along the forest edge. The species often associates with mixed-species flocks and sometimes follows army ants.
Russet Antshrike *Thamnistes anabatinus* (*saturatus*)	A fairly common resident of the primary rainforest, often seen in or just below the canopy, usually associated with mixed-species flocks.
Plain Antvireo *Dysithamnus mentalis* (*septentrionalis*)	A rarely seen resident of the primary forest, confined to the understorey, where pairs or family groups forage together. Rarely accompanies mixed-species flocks.
Dusky Antbird *Cercomacra tyrannina* (*crepera*)	This species would be expected to be common in the lowland rain forest of the area so it is a surprise that it escaped detection for so long, although its distribution is known to be highly patchy (Jim Zook *in litt.* 2007). It was first recorded on 10 July 2007, when IR found two pairs in primary forest. She saw these birds – or other individuals – repeatedly in primary forest or at the forest margin until 27 August, taking several photographs and making tape recordings.

Fig. 16: *Todirostrum cinereum* (Common Tody-Flycatcher). Photo: N. Sauberer

Fig. 17: *Legatus leucophaius* (Piratic Flycatcher). Photo: N. Sauberer

Dot-winged Antwren *Microrhopias quixensis* (*virgatus*)	A common resident of the edges of primary and secondary forest, often in mixed-species flocks.
Chestnut-backed Antbird *Myrmeciza exsul* (*occidentalis*)	A common resident of primary and secondary forest, not usually found associated with mixed-species flocks.
Bicolored Antbird *Gymnopithys leucaspis* (*olivascens*)	Common in primary forest and easily found in the vicinity of army ants.
Formicariidae (Antthrushes**,** Antpittas)	
Black-faced Antthrush *Formicarius analis* (*hoffmanni*)	A common resident of the forest, more frequently heard than seen.
Rufous-breasted Antthrush *Formicarius rufipectus* (*rufipectus*)	Two fairly reliable sight records from the edge of the old cacao plantation. The bird was seen by VM on 10 Nov 2006 and by CS and NS on 18 Jan 2007. This species is not known to occur on the Pacific slope of Costa Rica, although there have also been (questionable) sight records from the Bosque del Río Tigre Lodge on the Osa Peninsula and the Rufous-breasted Antthrush is known to occur on the Pacific slope in Panama.
Tyrannidae (Tyrant Flycatchers)	
Yellow-bellied Tyrannulet *Ornithion semiflavum*	A fairly common resident, most frequently seen at the forest edge or in tall secondary growth.
Southern Beardless-Tyrannulet *Camptostoma obsoletum* (*flaviventre*)	A common resident of secondary growth, often seen in the gardens.
Yellow Tyrannulet *Capsiempis flaveola* (*semiflava*)	A common resident of thicker areas of secondary growth, such as those found along the entrance road.
Yellow-crowned Tyrannulet *Capsiempis flaveola* (*semiflava*)	This species is a comparatively recent arrival from Panama and its range is expanding as a result of the increasing deforestation. It is now moderately common in areas of scrubby second growth and in pastures with scattered trees.
Greenish Elaenia *Myiopagis viridicata* (*accola*)	NS recorded one in the garden of the Tropical Research Station La Gamba on 28 Jan 2002 and JZ saw one on 4 Sept 2003. PC noted the species to be common at Carara, further N along the Pacific coast, in March 2001, April 2002 and April 2003: the Greenish Elaenia is known to be fairly common along the Pacific slope but "least numerous in Golfo Dulce region" (Stiles & Skutch 1989).
Yellow-bellied Elaenia *Elaenia flavogaster* (*subpagana*)	A common permanent resident of scrubby areas and second growth, frequently seen in the gardens.
Lesser Elaenia *Elaenia chiriquensis* (*chiriquensis*)	This species is also common in scrubby areas and second growth, such as the gardens. There is some evidence that its appearance is seasonal: it appears to be less common between September and January.
Ochre-bellied Flycatcher *Mionectes oleagineus* (*assimilis*)	A common permanent resident of the primary forest, where it generally keeps to lower levels. It sometimes enters the gardens.
Sepia-capped Flycatcher *Leptopogon amaurocephalus* (*pileatus*)	A moderately common resident of the understorey of humid forest.
Paltry Tyrannulet *Zimmerius vilissimus* (*parvus*)	A very common resident of open forest areas and pastures with scattered trees, especially where mistletoe is found.
Scale-crested Pygmy-Tyrant *Lophotriccus pileatus* (*luteiventris*)	A fairly common resident of the primary forest, especially at slightly higher elevations.

Northern Bentbill *Oncostoma cinereigulare*	A common resident of primary forest.
Slate-headed Tody-Flycatcher *Poecilotriccus sylvia* (*schistaceiceps*)	A fairly common resident of primary and secondary forest, occasionally seen in the gardens.
Common Tody-Flycatcher (Fig. 16) *Todirostrum cinereum* (*finitimum*)	A common bird in gardens, shady plantations and second growth, although it avoids the interior of forests.
Eye-ringed Flatbill *Rhynchocyclus brevirostris* (*brevirostris*)	A fairly common resident of humid forested areas, where it generally keeps to the mid-storey.
Yellow-olive Flycatcher *Tolmomyias sulphurescens* (*cinereiceps*)	A common resident of open wooded areas, taller second growth and areas of pasture with scattered trees. Also regularly enters the gardens.
Yellow-margined Flycatcher *Tolmomyias assimilis* (*flavotectus*)	On 4 Sep 2003 JZ saw and heard a single Yellow-margined Flycatcher in a mixed-species flock in forest along the river by the La Gamba – Golfito road. The species appears to be fairly regular, if not common, along forested creeks, especially in the Ciudad Neilly/Paso Canoas area to the south and there are recent reports from near Uvita. It may be under-recorded from SW Costa Rica because few people visit the type of habitat it seems to prefer. It is known to be a local resident in neighbouring W Chiriquí, Panama.
Golden-crowned Spadebill *Platyrinchus coronatus* (*superciliaris*)	A common although widely overlooked resident of primary forest, where it generally keeps to the dark understorey of more humid areas.
Royal Flycatcher *Onychorhynchus coronatus* (*mexicanus*)	A rarely seen species of primary forest, where it is presumed to be resident.
Ruddy-tailed Flycatcher *Terenotriccus erythrurus* (*fulvigularis*)	NS recorded one on 18 Feb 2002 while walking from La Gamba to the Playa Josecito, VM recorded the species in primary forest on 11 Nov 2006 and BS netted one on 3 July 2007. Presumably a rare resident.
Sulphur-rumped Flycatcher *Myiobius sulphureipygius* (*aureatus*)	A fairly common resident of humid areas in the forest as well as in older secondary growth, usually found at lower and middle levels.
Eastern Wood-Pewee *Contopus virens*	Reported by JZ on 29 Mar 2002 and (both in La Gamba and in Golfito) on 4 Sep 2003. Based on reports from surrounding areas, the species would be expected to be common on southbound migration from August until about November and on northbound migration from March until May.
Yellow-bellied Flycatcher *Empidonax flaviventris*	A fairly common winter visitor, generally found in the understorey of primary and secondary forest.
Willow Flycatcher *Empidonax traillii* (subspp unknown, presumably *adastus*, *traillii* and *brewsteri* all occur)	In 2001 TK mistnetted a total of 22 Alder / Willow Flycatchers (*E. alnorum* / *traillii*), one on 15 Feb and the remainder between 28 Apr and 24 May, and on 9 Feb 2004 AL observed one. The only conclusive identification of Willow Flycatcher comes from JZ, who saw and heard (the call is diagnostic) single individuals by Golfito on 10 Sep 2002 and by La Gamba on 4 Sep 2003.
Least Flycatcher *Empidonax minimus*	In the winter of 2006/2007 one was seen repeatedly by VM, CS and NS, presumably holding a winter territory.
Bright-rumped Attila *Attila spadiceus* (*citreopyga*)	This species is frequently heard in the Esquinas forest, although fairly rarely seen. It normally perches quietly in the canopy and midstorey of tropical rainforests.
Rufous Mourner *Rhytipterna holerythra* (*holerythra*)	A fairly common resident of primary forest and second growth, also seen in the plantations.
Dusky-capped Flycatcher *Myiarchus tuberculifer* (*nigricapillus*)	A common resident of primary forest, usually seen along the edges and in more open areas. Also fairly common in second growth.
Great Crested Flycatcher *Myiarchus crinitus*	A moderately common winter visitor, present from September or October until about April in forested areas and second growth.
Great Kiskadee *Pitangus sulphuratus* (*guatimalensis*)	A conspicuous and abundant resident of open second growth and all cleared areas. Its onomatopoeic call can be heard at all times of day.
Boat-billed Flycatcher *Megarynchus pitangua* (*mexicanus*)	A common resident of forest edge and semi-open areas, where it usually keeps to the canopy and betrays its presence by its loud and characteristic call.

Rusty-margined Flycatcher *Myiozetes cayanensis* (pres. *hellmayri*)	The first record for Costa Rica came from the La Gamba entrance road, where on 7 April 2004 MD saw, heard and photographed a single bird perched on a power line (Calderon et al. 2007). Another one, or the same individual, was at this site on 29 March 2005 (MD). On 26 March 2006 RG and BQ visited the site and reported a pair of birds perched by a nest built on a branch overhanging the water. Neither bird entered the nest during the time of observation but it seems likely that the birds were breeding. The pair was still present in July 2006 (MD); on Feb 2007 RG again saw a pair at the same site and JZ reported three individuals, all adults, on 8 Sept 2007.
Social Flycatcher *Myiozetetes similis* (*columbianus*) Gray-capped Flycatcher *Myiozetetes granadensis* (*granadensis*)	Both species are common and widely distributed in Costa Rica, being found in agricultural areas with scattered trees. The Social Flycatcher seems to prefer less humid habitats than the Gray-capped Flycatcher.
Streaked Flycatcher *Myiodynastes maculatus* (*difficilis*, in winter also *insolens*)	An uncommon resident of secondary growth and partially cleared areas. The numbers are swelled in winter by the arrival of non-breeding individuals from the north.
Sulphur-bellied Flycatcher *Myiodynastes luteiventris*	Presumably, based on sightings from neighbouring areas, an uncommon but regular passage migrant. JZ reported one on 29 Mar 2002.
Piratic Flycatcher (Fig. 17) *Legatus leucophaius* (*leucophaius*)	The Piratic Flycatcher breeds in Southern America and spends the Austral winter north of its breeding range. From Feb to September it is commonly found in cleared areas, for example along the entrance road.
Tropical Kingbird *Tyrannus melancholicus* (*satrapa*)	An abundant resident of lowlands and middle elevations throughout the country, even in cities, the Tropical Kingbird is frequently seen on exposed perches in all types of habitat, e.g. on roadside wires along the entrance road.
Fork-tailed Flycatcher *Tyrannus savana* (*monachus*)	A sporadic breeder in the lowlands of SW Costa Rica. The species is frequently seen hunting over the open country; RG reported a pair nesting along the entrance road, close to the village of La Gamba, on 10 Apr 2001.
Incertae sedis	
Thrush-like Schiffornis *Schiffornis turdinus* (*veraepacis*)	A moderately common, though inconspicuous, resident of forested areas.
Rufous Piha *Lipaugus unirufus* (*unirufus*)	A common resident of humid primary forest, frequenting the canopy and middle levels, usually individually. It is not known to associate with mixed-species flocks.
Speckled Mourner *Laniocera rufescens* (*rufescens*)	Presumably a rare and local resident of primary forest.
Cinnamon Becard *Pachyramphus cinnamomeus* (*fulvidior*)	An uncommon resident of primary forest and second growth, usually seen in the canopy at the forest edge. Elsewhere in its range the species is known to be moderately common in mangroves so it should be looked for in this habitat by Golfito and the Rio Coto, an area where ornithological coverage has to date been scanty.
White-winged Becard *Pachyramphus polychopterus* (*similis*)	A fairly common permanent resident of cleared areas in open forest as well as of old second growth and light woodland.
Black-and-white Becard *Pachyramphus albogriseus* (*ornatus*)	This species generally keeps to the canopy of primary forest and may thus be more common in the La Gamba area than the relatively few records would indicate. Alternatively, it may be a sporadic and irruptive visitor to the region.
Rose-throated Becard *Pachyramphus aglaiae* (*latirostris*)	A common resident, most easily seen in the mangroves but also fairly common in areas of second growth and in cleared areas in the primary forest.
Masked Tityra *Tityra semifasciata* (*costaricensis*) Black-crowned Tityra *Tityra inquisitor* (*fraserii*)	The two species of Tityra recorded in the area are year-round residents of forested areas and frequently enter clearings. The Masked Tityra is slightly more common than the Black-crowned Tityra but both are readily found singly or in pairs or small groups near the tops of trees in forests and gardens.
Cotingidae (Cotingas)	
Turquoise Cotinga *Cotinga ridgwayi*	Included on the list on the basis of three sightings. No details are available on the first, in 1996; on 29 Mar 2002 JZ saw a male perched in the top of a tall tree from the high point of the La Gamba – Golfito road and on 19 Jan 2008 SW observed a female in primary forest.

Yellow-billed Cotinga *Carpodectes antoniae*	This species would be expected to be at least moderately common in the coastal mangroves – it is frequently recorded in such habitat on the nearby Osa Peninsula – but due to the poor ornithological coverage of mangroves in La Gamba there are very few records. The only sightings known to the author are of a single bird seen in the primary forest on 30 Nov 2006 (VM) and another on 3 Feb 2007 in La Bolsa, by La Gamba (approx. 2km from the Tropical Research Station). On the latter date at least one and possibly two birds were present, perched on an isolated, tall fig tree in the cultivated land close to the forest border (AW).
Three-wattled Bellbird *Procnias tricarunculata*	The Three-wattled Bellbird breeds in the highlands of Central America, generally above 2000m, but is known to disperse widely in winter. One bird spent the winter of 2002/2003 by the Tropical Research Station La Gamba, where it was seen repeatedly by many visitors to the Station. And on 21 Jan 2008, GA, WH and SW observed one in the canopy of coastal forest by the Macaw aviary.
Pipridae (Manakins)	
Orange-collared Manakin *Manacus aurantiacus* Blue-crowned Manakin *Pipra coronata* (*velutina*) Red-capped Manakin *Pipra mentalis* (*ignifera*)	The three species of Manakin are common residents of the primary forest and can easily be seen at their leks. Orange-collared Manakins occasionally visit the gardens for food; Red-capped Manakins do so more rarely and Blue-crowned Manakins have yet to be observed in the gardens. Female Red-capped Manakins are also occasionally observed in association with army-ant swarms.
Vireonidae (Vireos)	
Yellow-throated Vireo *Vireo flavifrons* Red-eyed Vireo *Vireo olivaceus* (the precise racial identity is unknown but birds belong to the *olivaceus* group)	The Yellow-throated Vireo is a common winter visitor (from September until April) to cleared and semi-open areas while the Red-eyed Vireo is a passage migrant (seen in September and October and again from April to May) frequently found in the forest.
Yellow-green Vireo *Vireo flavoviridis*	Presumably a common breeding visitor: the species is present along the Pacific slope of Costa Rica from February to October, although it is less common in humid forest. JZ reports the species as common in clearings and gardens in the area in summer.
Scrub Greenlet *Hylophilus flavipes* (*viridiflavus*)	A common resident of scrubby areas of secondary habitat.
Tawny-crowned Greenlet *Hylophilus ochraceiceps* (*pallidipectus*) Lesser Greenlet *Hylophilus decurtatus* (*decurtatus*) Green Shrike-Vireo *Vireolanius pulchellus* (*verticalis*)	These three species are common residents of forested areas, although the Tawny-crowned Greenlet appears to be slightly less widespread than the other species. The Green Shrike-Vireo may frequently be heard calling from the edge of the primary forest but is much less commonly seen, possibly because it tends to remain in the upper canopy of the tallest trees.
Corvidae (Crows, Jays, Magpies)	
White-throated Magpie-Jay *Calocitta formosa* (*pompata*)	One was recorded in 1998, although no further details are available. According to subsequent accounts, the species was seen at the Lodge in the summer of 1999 by one of the local guides. It is unclear whether these two reports refer to the same sighting (with an error in the date in one case) or to two sightings in successive years. In any case, the species is so distinctive that misidentification is highly unlikely. It is clearly a very rare vagrant to SW Costa Rica.
Brown Jay *Cyanocorax morio* (*cyanogenys*)	NS and CS reported two individuals on 28 Jan 2007 close to the entrance to the Tropical Research Station (at the start of the Fila Trail) and on 19 Jan 2008 SW saw one in gardens opposite the Finca Modelo. This species may be in the process of expanding its range to the south and thus may in future become more frequent in the La Gamba area.
Hirundinidae (Swallows, Martins)	
Gray-breasted Martin *Progne chalybea* (*chalybea*)	A common permanent resident, seen over clearings and along the various waterways.
Brown-chested Martin *Progne tapera* (pres. *tapera*)	On 8 October 2004, PM and HF reported seeing nine of these rare migrants from South America.
Mangrove Swallow *Tachycineta albilinea*	A common permanent resident and not confined to mangroves – it may be seen hawking for insects over cleared areas, streams, rivers and the coast.
Northern Rough-winged Swallow *Stelgidopteryx serripennis* (wintering birds presumably belong to race *psammochroa* but *fulvipennis* may also occur)	On 8 January 2004 AL saw one over the fields to the west of the Tropical Research Station La Gamba. On 25 Feb 2004 GT saw two birds together with a group of Southern Rough-winged Swallows *S. ruficollis* by the Rio Bonito and on 17 Jan 2008 SW observed 2-3 individuals flying over ricefields along the entrance road.

Fig. 18: *Thryothorus semibadius* (Riverside Wren). Photo: N. Sauberer

Fig. 19: *Dendroica petechia* (Yellow Warbler). Photo: G. Krieger

Southern Rough-winged Swallow *Stelgidopteryx ruficollis* (*decolor*)	A common resident, frequently seen over cleared areas, streams and rivers.
Bank Swallow *Riparia riparia* (*riparia*) Cliff Swallow *Petrochelidon pyrrhonota* (unknown, any of the four races could and probably do occur on migration)	Reports from other sites suggest that the two species should be common passage migrants – the scarcity of sightings from La Gamba probably results from the limited attention paid to high-flying hirundines. JZ recorded both species passing north on 29 Mar 2002 and heading south on 4 Sep 2003.
Barn Swallow *Hirundo rustica* (*erythrogaster*)	A fairly common winter visitor, seen most frequently over pastures and clearings.
Troglodytidae (Wrens)	
Black-bellied Wren *Thryothorus fasciatoventris* (*melanogaster*) Riverside Wren (Fig. 18) *Thryothorus semibadius*	Common in forested areas, especially in more humid areas. As its name implies, the Riverside Wren is particularly tied to areas along streams and rivers and can easily be observed along the Quebrada Negra behind the lodge. The Black-bellied Wren prefers dense forest understorey, e.g. dense stands of *Heliconia* near streams in the forest.
Plain Wren *Thryothorus modestus* (*elutus*) House Wren *Troglodytes aedon* (*inquietus*)	Common in cleared areas and areas of light secondary growth, for example around the Tropical Research Station La Gamba.
Scaly-breasted Wren *Microcerculus marginatus* (*luscinia*)	A common resident of the primary forest, especially in more humid areas.
Cinclidae (Dippers)	
American Dipper *Cinclus mexicanus* (*ardesiacus*)	On 16 Jan 2004 AL saw one briefly by the waterfall.
Sylviidae (Old World Warblers)	
Long-billed Gnatwren *Ramphocaenus melanurus* (*rufiventris*)	A fairly common resident of the primary forest, usually found in breaks or along forest edges.
Tropical Gnatcatcher *Polioptila plumbea* (*superciliaris*)	A common resident of taller second growth, frequently entering the gardens. The species generally keeps close to the canopy.
Turdidae (Thrushes)	
Swainson's Thrush *Catharus ustulatus* (subspp. unknown: the races *incanus*, *swainsoni* and *appalachiensis* are all likely to occur on migration; wintering birds are most probably attributable to *ustulatus*)	A fairly common winter visitor, most frequently seen in lightly forested areas although it sometimes enters the gardens.
Clay-colored Robin *Turdus grayi* (*casius*)	An abundant resident of clearings, frequently seen in the gardens and along the roadside.
White-throated Robin *Turdus assimilis* (*cnephosus*)	Fairly commonly seen, at least in winter, in both primary and secondary forest, probably as a result of post-breeding dispersal to lower areas. On 26 Jan 2007 one was seen feeding on fruits in the garden of the Tropical Research Station La Gamba (NS).

Fig. 20: *Dendroica pensylvanica* (Chestnut-sided Warbler). Photo: N. Sauberer

Parulidae (New World Warblers)	
Golden-winged Warbler *Vermivora chrysoptera*	This winter guest to Costa Rica from North America is virtually absent from the Pacific lowlands. Nevertheless, one is noted, without further details, from the Station logbook in 1995 and NS recorded one in the garden of the Tropical Research Station on 3 Feb 2007.
Tennessee Warbler *Vermivora peregrina*	An abundant winter visitor, usually seen in more open habitats but nevertheless a common consituent of mixed-species feeding flocks in the primary forest.
Yellow Warbler (Fig. 19) *Dendroica petechia* (precise subspp unknown but birds belong to the *aestiva* group – see note)	A common passage migrant and winter visitor to cleared areas and coastal mangroves. All sightings of the species relate to "yellow-headed" migrant forms; the rufous-headed subgroup, *D. petechia erithachorides*, which could be expected to be resident in the mangroves, has yet to be recorded from La Gamba.
Chestnut-sided Warbler (Fig. 20) *Dendroica pensylvanica*	A common winter visitor. The Chestnut-sided Warbler occurs in the middle and upper levels of forest but readily descends to feed in shrubs at forest edges and in gardens and clearings. It is often found associated with mixed-species feeding flocks.
Bay-breasted Warbler *Dendroica castanea*	Clearly rare in winter: NS reported one on 25 Jan 2007.
Black-and-white Warbler *Mniotilta varia*	A rare winter visitor, generally found in Costa Rica at higher elevations although there are occasional records from both primary and secondary forest in the La Gamba area.
American Redstart *Setophaga ruticilla*	This highly distinctive warbler is known to be an uncommon migrant through Costa Rica and an uncommon and local winter visitor to the lowlands of both coasts. In early May 2003 GK observed a male in the primary forest of La Gamba.
Prothonotary Warbler *Protonotaria citrea*	A rare winter visitor to open areas and to the coastal mangroves (where it might be expected to be more common – the paucity of records presumably reflects the relatively poor coverage of this habitat). The species is presumably common during autumn migration: it is one of the earliest N American warblers to move through the area, arriving from about the start of September. JZ recorded one in a roadside thicket along the entrance road on 8 Sept 2007.
Ovenbird *Seiurus aurocapilla* (*cinereus*)	One caught in mistnets by TK on 7 Mar 2001. The species is thought to be a moderately common winter visitor throughout the lowlands but its secretive habits mean that it is frequently overlooked.
Northern Waterthrush *Seiurus noveboracensis*	This winter visitor is moderately common along the banks of the rivers and streams in the area and is occasionally seen in flooded fields along the entrance road.
Louisiana Waterthrush *Seiurus motacilla*	One seen and heard by GT on 25 Feb 2004 by the Rio Bonito. The Louisiana Waterthrush generally winters at higher elevations.
Kentucky Warbler *Oporornis formosus*	Two caught in mistnets by TK in 2001, one on 14 Feb and one on 10 Mar.
Mourning Warbler *Oporornis philadelphia*	A common winter visitor to the lowlands of Costa Rica. In the La Gamba area it is fairly common in the more open, agricultural areas and is occasionally reported from the primary forest.
Gray-crowned Yellowthroat *Geothlypis poliocephala* (pres. *icterotis*)	A rare resident of pastures, e.g. along the entrance road. The population in the Pacific lowlands is known to be increasing as a result of increased forest clearance for grazing.

Fig. 21: *Ramphocelus costaricensis* (Cherrie's Tanager). Photo: N. Sauberer

Fig. 22: *Chlorophanes spiza* (Green Honeycreeper). Photo: N. Sauberer

Hooded Warbler *Wilsonia citrina*	Known to be a rare or very uncommon winter visitor to Costa Rica. NS reported seeing one on 29 Jan 2002.
Wilson's Warbler *Wilsonia pusilla* (subspp. unknown: any of the three races could occur)	One mistnetted by TK on 13 Mar 2001 and one seen by AL on 1 Feb 2004 by the stream behind the Tropical Research Station La Gamba. VM recorded a female on the edge of the forest by the Playa Josecito on 26 Nov 2006 and CS reported a possible sighting of a female from 29-31 Jan 2007 opposite the Tropical Research Station La Gamba. The species is a common winter visitor to higher elevations, generally above about 900m, but is rare and sporadic in the Pacific lowlands.
Slate-throated Redstart *Myioborus miniatus* (pres. *comptus*)	One seen by TK in 2001. No further details are available and the bird was well below the species' normal altitudinal range (which on the Pacific slope extends down to about 1100m). Nevertheless, the observer was highly experienced and the species is unmistakable so the author feels the sighting is reliable.
Buff-rumped Warbler *Phaeothlypis fulvicauda* (*veraguensis*)	A fairly common permanent resident, most frequently seen along small streams.
Yellow-breasted Chat *Icteria virens* (*virens*)	NS reported seeing one in the cultivated land along the entrance road on 17 Feb 2007. A widespread but generally uncommon winter visitor to Costa Rica.
Incertae sedis	
Bananaquit *Coereba flaveola* (*mexicana*)	A common resident, more frequently seen along forest edges and in cleared areas (e.g. on the feeding stations) than in primary forest.
Thraupidae (Tanagers)	
Rosy Thrush-Tanager *Rhodinocichla rosea* (*eximia*)	A rare visitor. There is no information relating to the first record except for the year: 1995. On 15 Feb 2007 AS reported one on the Riverbed Trail.
Gray-headed Tanager *Eucometis penicillata* (*stictothorax*)	A fairly common resident of the primary forest. Pairs or family groups are often found associated with army ant swarms.
White-throated Shrike-Tanager *Lanio leucothorax* (*melanopygius*)	A fairly common resident of the primary forest, almost invariably found associated with mixed-species flocks, for which it acts as the "sentinel".
White-shouldered Tanager *Tachyphonus luctuosus* (*axillaris* / *nitidissimus*)	A common resident of secondary growth and partially cleared areas.
White-lined Tanager *Tachyphonus rufus*	As with the previous species, a common resident of secondary growth and partially cleared areas. In addition, the White-lined Tanager is also frequently seen along streams. The species is a fairly recent colonist of the Golfo Dulce lowlands.
Black-cheeked Ant-Tanager *Habia atrimaxillaris*	This species is restricted to lowland forest around the Golfo Dulce. It is common and easily seen in the understorey of the primary forest of Esquinas, generally in the lower, more humid areas. It is often found associated with mixed flocks of antwrens, foliage-gleaners and greenlets.
Hepatic Tanager *Piranga flava* (prob. *testacea*)	Presumably a rare (or overlooked) resident. Records are more frequent outside the breeding season, when birds descend from higher elevations.

Summer Tanager *Piranga rubra* (*rubra*)	A moderately common winter visitor (seen from September to April), both to forested areas and to the gardens.
Scarlet Tanager *Piranga olivacea*	A regular passage migrant that moves through the area in a fairly concentrated period, within about a month both in spring and in autumn. JZ recorded a male and two females along the La Gamba – Golfito road on 29 Mar 2002.
Cherrie's Tanager (Fig. 21) *Ramphocelus costaricensis* Blue-gray Tanager *Thraupis episcopus* (*cana*) Palm Tanager *Thraupis palmarum* (*atripennis*) Bay-headed Tanager *Tangara gyrola* (*bangsi*) Golden-hooded Tanager *Tangara larvata* (*franciscae*)	These five species are all common and conspicuous permanent residents. All of them may be found in mixed-species flocks in the forest, although Cherrie's and Blue-gray Tanagers are rare here and seem far to prefer more open habitats (such as forest edges and the gardens). All species regularly visit the feeding stations in the gardens, which probably represent the best place to see them.
Scarlet-thighed Dacnis *Dacnis venusta* (*venusta*)	There are relatively few records of this widespread and easy to identify species and they all stem from the winter months, presumably relating to dispersing birds looking for food. Nevertheless, the species is known to breed in lowland forests and would be expected to occur in the La Gamba area throughout the year, although numbers in the lowlands are swelled outside the breeding season by individuals moving down from higher elevations.
Blue Dacnis *Dacnis cayana* (*callaina*) Green Honeycreeper (Fig. 22) *Chlorophanes spiza* (*arguta*) Shining Honeycreeper *Cyanerpes lucidus* (*isthmicus*) Red-legged Honeycreeper *Cyanerpes cyaneus* (*carneipes*)	Common permanent residents of all forested areas and frequently seen on the feeding stations in the gardens of the Lodge and the Tropical Research Station La Gamba. The Blue Dacnis appears to be slightly less common than the other three species but all are very frequently encountered.
Emberizidae (Buntings)	
Blue-black Grassquit *Volatinia jacarina* (*splendens*)	A very common resident of pastures and agricultural land, easily seen along the entrance road.
Slate-colored Seedeater *Sporophila schistacea* (*schistacea*) Variable Seedeater *Sporophila americana* (*corvina*) White-collared Seedeater *Sporophila torqueola* (*morelleti*) Yellow-bellied Seedeater *Sporophila nigricollis* (*nigricollis*) Ruddy-breasted Seedeater *Sporophila minuta* (*centralis*)	Several species of seedeater are commonly found in seeding grasses along the Esquinas entrance road. Perhaps the most common is the Variable Seedeater, although Both Yellow-bellied and Ruddy-breasted seedeaters are fairly common. The other two species are rarer.
Thick-billed Seed-Finch *Oryzoborus funereus*	Fairly common in second growth along the entrance road and also occasionally seen within the forest. It is more arboreal in nature than the other species in this family.
Yellow-faced Grassquit *Tiaris olivacea* (*pusillus*)	Two trapped by TK on 7 Mar 2001 and one seen by AL on 7 Feb 2004. The species is very common in cleared areas at higher elevations, so the few records presumably relate to wandering birds in the winter.
Orange-billed Sparrow *Arremon aurantiirostris* (*aurantiirostris*)	A common inhabitant of the dark understorey of the primary forest
Black-striped Sparrow (Fig. 23) *Arremonops conirostris* (*richmondi*)	Very common in the gardens in La Gamba. Also to be found in low thickets, shady plantations and young second growth.
Cardinalidae (Cardinals, Grosbeaks)	
Streaked Saltator *Saltator striatipectus* (*furax*) Buff-throated Saltator *Saltator maximus* (*intermedius*)	The Buff-throated Saltator is primarily an inhabitant of secondary forests but it also lives in primary forests. It frequently enters forest edges, semi-open, shady plantations and gardens in search of food. The Streaked Saltator can also be seen regularly in the gardens, although it prefers more open country, e.g. abandoned pastures with thickets of secondary growth, and avoids forests.
Blue-black Grosbeak *Cyanocompsa cyanoides* (*toddi*)	A common forest bird, largely found in the understorey. It regularly enters shady semi-open areas adjacent to the forest to feed.
Indigo Bunting *Passerina cyanea* Painted Bunting *Passerina ciris* (*pallidior*)	These attractive species are rare winter visitors to the agricultural areas along the entrance road. TK mistnetted a total of ten Indigo Buntings between 8 and 28 Feb 2001, with seven individuals caught on 27 Feb. The same observer mistnetted a single Painted Bunting on 12 Mar.

Fig. 23: *Arremonops conirostris* (Black-striped Sparrow). Photo: N. Sauberer

Fig. 24: *Euphonia imitans* (Spot-crowned Euphonia). Photo: N. Sauberer

Icteridae (New World Orioles)	
Red-breasted Blackbird *Sturnella militaris*	The species was first recorded in Costa Rica in 1974 but its range has subsequently expanded markedly and it is now common and easy to observe in the wet pastures along the entrance road.
Eastern Meadowlark *Sturnella magna* (*subulata*)	This species may also be found in the agricultural areas along the entrance road, although it is generally confined to drier areas than the Red-breasted Blackbird. It was formerly rare but is growing more common as a result of increasing deforestation.
Great-tailed Grackle *Quiscalus mexicanus* (*peruvianus*)	Very common in all more open habitats throughout the area.
Bronzed Cowbird *Molothrus aeneus* (*aeneus*) Giant Cowbird *Molothrus oryzivorus* (*impacifa*)	These two species are (still only?) moderately common in non-forested areas, especially in the agricultural areas along the entrance road.
Orchard Oriole *Icterus spurius*	A moderately common passage migrant, seen from August to October and from March to April in the gardens and in areas of scrubby second growth.
Baltimore Oriole *Icterus galbula*	A common to abundant migrant and winter visitor to the Esquinas area, the Baltimore Oriole can be observed from early September to early May, usually on feeding stations and in fruiting trees in clearings.
Yellow-billed Cacique *Amblycercus holosericeus* (*holosericeus*)	A presumably rare and shy resident of low, dense thickets in areas of secondary growth.
Scarlet-rumped Cacique *Cacicus uropygialis* (*microrhynchus*)	The Scarlet-rumped Cacique is a typical inhabitant of the primary forest. It often accompanies mixed-species flocks in the upper level of the forest. Birds sometimes feed on the bananas in the feeding station of the Tropical Research Station La Gamba but they are relatively shy.
Crested Oropendola *Psaracolius decumanus* (*melanterus*)	On 29 Mar 2002 JZ observed four birds at a small colony (six nests) a few kilometres along the main road towards Ciudad Neilly. Individuals from this colony (or others) occasionally wander to the La Gamba area. On the same day, JZ saw a single bird flying over the La Gamba entrance road. IR photographed a flock of three birds perched in trees by the village of La Gamba on 7 July 2007.
Fringillidae (Finches)	
Yellow-crowned Euphonia *Euphonia luteicapilla*	A common resident of open forest and the gardens, frequently seen on the feeding station.
Thick-billed Euphonia *Euphonia laniirostris* (*crassirostris*)	Fairly common at the edges of primary forest and in clearings. This species is also readily observed on the feeding station.
Yellow-throated Euphonia *Euphonia hirundinacea* (*gnatho*)	Seemingly a rare resident or occasional visitor. GK reported the species in 2003 but the only other sightings known to the author date from Feb 2007. On 14 Feb SE saw a male in the garden of the Tropical Research Station La Gamba; three days later NS observed a pair in a cultivated area – the male repeatedly displayed to the female.
Spot-crowned Euphonia (Fig. 24) *Euphonia imitans*	Commonly found in the middle and upper levels of primary forest, occasionally venturing into clearings such as the lodge gardens. It sometimes comes to the feeding station to eat bananas.
White-vented Euphonia *Euphonia minuta* (*humilis*)	Apparently a rare resident of areas of second growth; a very occasional visitor to the gardens.

Additional species (for which the author considers the documentation insufficient)

The author does not wish to question the observers' abilities to identify birds correctly. However, in all cases the details given were considered insufficient in view of the species' expected or actual rarity in the area. It is hoped that increased observer coverage may result in the inclusion of at least some of these additional species on the full list.

The following list gives brief details of the sightings in question, where available, together with an indication of why the author feels the observations require further documentation.

White-faced Whistling Duck *Dendrocygna viduata*	A single sighting mentioned in the Station logbook from 1998. No further details are available and CALDERON et al. (2007) include the species among those for which there have been no confirmed records from Costa Rica for at least 25 years. Without additional information, it seems premature to accept the White-faced Whistling Duck on the list.
American Wigeon *Anas americana*	Two female ducks seen on flooded pastures by the entrance road on 15 Nov 2006 possibly belonged to this species but the identification is uncertain. American Wigeon is a regular winter visitor to the Tempisque basin in Guanacaste but extremely rare elsewhere in the country.
Rufescent Tiger-Heron *Tigrisoma lineatum*	An immature bird by the Quebrada Bolsa on 6 July 2007 was well seen but the description is insufficient to eliminate the possibility of confusion with Bare-throated Tiger-Heron *T. mexicanum* or even with Fasciated Tiger-Heron *T. fasciatum*, which occurs in the foothills of the zona sur (down to around 75m in elevation). In Costa Rica, Rufescent Tiger-Heron is confined to the Caribbean slope.
Crested Eagle *Morphnus guianensis*	A third-hand account of one seen soaring over the forest on 23 June 2004 seems insufficient basis for including this extremely rare species on the list.
Bat Falcon *Falco rufigularis*	One mentioned in the Station logbook for 1998 but no further details are known. The species is rare in Costa Rica and is known to have declined in recent years. Without any documentation the sighting must be called into question.
Rufous-Necked Wood-Rail *Aramides axillaris*	Two individuals noted on the road between the Lodge and the Tropical Research Station La Gamba in early 2003. Without further details, the record seems unlikely (there is no voucher for Rufous-Necked Wood-Rail in Costa Rica) and the author suspects that the observer may have misidentified a pair of Gray-necked Wood-Rails *A. cajanea*.
Uniform Crake *Araurolimnas concolor*	One seen very briefly running across the path by the Tropical Research Station La Gamba on 29 Jan 2006. The observer saw little more than a flash and had the impression of red legs. The Uniform Crake is thought to be a rare and local resident of the Golfo Dulce lowlands so could well occur in the La Gamba area. Nevertheless, the author feels that without further details the single sighting is insufficient to justify inclusion of the species on the La Gamba list.
Mourning Dove *Zenaida macroura*	One reported on 7 Dec 2006. While not impossible, the description ("a dove with a long tail, seen as it flew from a tall palm tree") is rather scant and insufficient to support inclusion of the species on the list: the La Gamba area lies well outside its normal range (see Inca Dove below)
Inca Dove *Columbina inca*	A further long-tailed dove, the Inca Dove, is known to be expanding its range to the south and could potentially occur in the La Gamba area. Nevertheless, the author feels that the only claimed sighting, in Jan-Feb 2005, should be support by a description before it can be accepted.
Orange-fronted Parakeet *Aratinga canicularis*	Noted on 28 Jan 2006 but the observers felt that the identification was questionable. The species is common in the dry areas of NW Costa Rica but very unusual further S; without further details the author does not feel that the record should be accepted.
Scarlet Macaw *Ara macao*	The Scarlet Macaws commonly seen in coastal areas are the result of a reintroduction programme; the autochthonous population was extirpated as a result of deforestation and trapping.
White-fronted Parrot *Amazona albifrons*	Noted on 30 Jan 2006 but the observers felt that the identification was questionable. The White-fronted Parrot is generally confined to the dry NW of the country; any sightings outside this range should be well documented.

Veraguan Mango *Anthracothorax veraguensis*	A female Mango was seen visiting *Heliconia* flowers along the entrance road on 8 Sept 2007 and another was observed on *Erythrina* flowers by the Tropical Research Station La Gamba on 21 Jan 2008. Stiles & Skutch (1989) note that Veraguan Mango "may eventually be found on S Pacific slope" but it is known that the Green-breasted Mango *A. prevostii* is gradually expanding its range southwards along the Pacific slope of the country. The AOU only decided to separate the two species in 1995 (American Ornithologists' Union 1995) as a result of a paper by Olson (1993), who commented that field identification of the two species is not always unproblematic. The precise identity of the Mangos in SW Costa Rica has not yet been determined – they are known to be fairly common in coastal mangroves all the way to the border with Panama (Jim Zook *in litt.*) – and the most recent checklist of the birds of Costa Rica (Calderon et al. 2007) includes Veraguan Mango as "doubtful". As the species is not (yet) on the Costa Rican list, the author prefers to wait before including it on the La Gamba list.
Steely-vented Hummingbird *Amazilia saucerottei*	One seen in flight in 2001. No further details are available and the sighting would be well away from the species' normal range. Given the difficulty of identifying hummingbirds in certain plumages, further information is required before this species may be accepted.
Plain-capped Starthroat *Heliomaster constantii*	A claimed sighting from Golfo Dulce in 1998, for which no further details are available. La Gamba is well south of the species' normal range; confusion with a (female?) Long-billed Starthroat *H. longirostris* seems likely.
Ruddy Treerunner *Margarornis rubiginosus*	One reported on 6 Nov 2006 would be well below the species' normal altitudinal range. Without a full description, the author feels that the record should not be accepted.
Scaly-throated Foliage-gleaner *Anabacerthia variegaticeps*	One seen in 2001. Without further details, the author considers the identification questionable: the species is normally resident at much higher elevations.
Olivaceous Woodcreeper *Sittasomus griseicapillus*	One seen on 9 Nov 2006 and two birds seen on 11 Nov 2006 would be well out of range. Again, the sightings are not supported by any written description and the author feels that they do not represent a sufficient basis for inclusion of the species on the list.
Slaty Antwren *Myrmotherula schisticolor*	A male seen in primary forest on 24 Nov 2006. The species would be expected to occur in the area, so it is extremely surprising that it is not reported regularly. It is not known to disperse widely and in view of the difficulty of identifying non-vocalizing *Myrmotherula* antwrens (and of possible confusion with the superficially similar Dusky Antbird *Cercomacra tyrannina*) the author feels that further documentation is required before the species can be included on the list.
Immaculate Antbird *Myrmeciza immaculata*	A pair seen by the overgrown cocoa plantation on 12 Nov 2006 and a single bird seen the following day by the same observer. La Gamba lies well below the species' normal altitudinal range and the species is not known to disperse so the sightings must be called into question.
Ocellated Antbird *Phaenostictus mcleannani*	Retracted by the observer.
Northern Beardless-Tyrannulet *Camptostoma imberbe*	One seen and heard by the Tropical Research Station La Gamba on 24 and 25 Feb 2004 (by the author!) was identified primarily by vocalizations. Subsequent investigations have revealed that the calls of this species and the closely related Southern Beardless-Tyrannulet *C. obsoletum* are more variable than had previously been supposed and the author is thus no longer certain that his identification was correct.
Black-capped Pygmy-Tyrant *Myiornis atricapillus*	One reported on 10 Nov 2006 would be well out of the species' normal range (which is restricted to the Caribbean side of the country). The observer noted that other individuals were heard calling in the same area, suggesting that he was not familiar with the species.
Black-tailed Flycatcher *Myiobius atricaudus*	Interestingly, Calderon et al. (2007) include this species among those without voucher, implying that it may not be as common in Costa Rica as believed. The one report from the La Gamba area relates to an individual seen in the second week of Aug 2006; in the author's opinion, the photograph shows a Sulphur-rumped Flycatcher *M. sulphureipygius*.

Olive-sided Flycatcher *Contopus cooperi*	One seen near the feeding station of the Tropical Research Station La Gamba on 22 Nov 2006 was insufficiently described. The date would be somewhat late for a bird on autumn migration and the species is know to be rare in winter; the author thus feels that further details are required before including it on the list.
Western Wood-Pewee *Contopus sordidulus*	This species would be expected to occur in the area on passage but has not yet been recorded with certainty, possibly because of the difficult of identifying non-vocalizing *Contopus* flycatchers. A possible sighting, in trees by the rice fields on 18 Jan 2008, must be treated as questionable: Western Wood-Pewee is rare in Costa Rica in winter and the description is fairly sketchy.
Tropical Pewee *Contopus cinereus*	Two possible sightings, on 21 Jan 2002 and on 15 Feb 2002, both defined as questionable by the observer.
Golden-bellied Flycatcher *Myiodynastes hemichrysus*	A single bird on 27 Oct 2006 in the garden of the Tropical Research Station La Gamba would be well below the species' normal altitudinal range
Blue-headed Vireo *Vireo solitarius*	One on 29 Jan 2006 would be well out of range for this vagrant to Costa Rica. Without a full description, the record must be called into question.
Philadelphia Vireo *Vireo philadelphicus*	Two sightings (on 27 Jan 2002 and on 5 Feb 2002), both classified by the observer as "questionable".
Purple Martin *Progne subis*	A female seen on 28 Nov 2006, flying over rice fields by the Tropical Research Station La Gamba. The date is late for a bird on autumn migration and the species is known to be rare on the Pacific slope. Because of the difficult of identifying female martins, the author feels that further details are required before including Purple Martin on the list.
White-breasted Wood-Wren *Henicorhina leucosticta*	Retracted by the observer.
Orange-billed Nightingale-Thrush *Catharus aurantiirostris*	One seen in flight in 2001 and one reported in primary forest on 2 Nov 2006. Although the two sightings could relate to individuals dispersing during winter, the species is not known to disperse widely and without better documentation the author prefers to regard the records as uncertain.
Blue-winged Warbler *Vermivora pinus*	A rare winter guest to Costa Rica, most frequent in the Caribbean lowlands. The species is known to be expanding its breeding range in North America (Dunn & Garrett 1997) and so may become less rare in future. Nevertheless, one seen in the garden of the Tropical Research Station on 17 Jan 2008 was insufficiently described for identification to be certain.
Yellow-rumped Warbler *Dendroica coronata*	One recorded in the Station logbook from 1998 but no further details are available. The species is known to winter regularly in Costa Rica, although it is more common in the Caribbean lowlands than on the Pacific side of the country. Without any documentation the author prefers to regard the sighting as questionable.
Common Yellowthroat *Geothlypis trichas*	One seen on 19 Jan 2007 was defined as questionable by the observer. The species is known to be very uncommon to rare in the lowlands of Costa Rica during winter.
Flame-colored Tanager *Piranga bidentata*	Two birds seen on 30 Oct 2006 were insufficiently described. Subsequent sightings on 28 Nov 2006 were better documented but in view of the species' undoubted rarity at such low elevations, the author would prefer to wait for photographic evidence before including it on the La Gamba list.

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