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**EBRO DELTA (FROM LISBON AND BACK), 22-MAY TO 5-JUNE-2012:
Thick-billed Reed Buntings and much more**



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Ebro Delta (from Lisbon and back), 22-May to 5-June-2012

Cover illustration by Toni Llobet from Estrada *et al.* (2004)

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Ebro Delta (from Lisbon and back), 22-May to 5-June-2012

Abstract: This report describes a 15 day round trip between Lisbon (Estremadura, Portugal) and Ebro Delta (Tarragona, Cataluña, España) by car. 11 days were spent at Ebro Delta, mostly doing fieldwork with reed buntings, but some time was also spent birding. Other animals (mostly vertebrates) were not deliberately searched for, but simply recorded in an opportunistic way. On the four days spent mostly on the road some extra birding was done, namely at Tablas de Daimiel (Ciudad Real, Castilla – La Mancha), Embalse García de Sola (Badajoz, Extremadura) and Zafra de Zancara (Cuenca, Castilla – La Mancha). This report was written to synthesize birding data, fieldwork results will be presented elsewhere. Overall, 159 species of birds, 15 of mammals, 11 of reptiles, 3 of amphibians, 2 of fishes and 3 of “notable” invertebrates are reported. Highlights include three Mediterranean Storm Petrels at L’Ametlla de Mar on two different days, one adult female Little Crake seen and one male Baillon’s Crake calling at Riet Vell, one Dupont’s Lark at Zafra de Zancara and two Icterine Warblers at Illa de Buda (one of them self-found). Also interesting were 23 feral Greylag Goose young at Daimiel; Garganey and Common Teal at Illa de Buda; 1 Great Skua and 5+ Northern Gannet at sea seen from Ebro Delta beaches; 10 Mediterranean Shags at L’Ametlla de Mar; 19 Western Great Egrets at Encanyissada roost; 2 Black Stork, 1 Egyptian Vulture, 35+ Griffon Vulture, 2 Cinereous Vulture, 2+ Alpine Swifts and 2 Red-billed Choughs in Extremadura; Eurasian Spoonbill and Continental Great Cormorant breeding at Tablas de Daimiel; 7 Caspian Terns at Salines de Sant Antoni; 350 Sand Martins at Daimiel; and Spectacled and Western Orphean Warblers at Zafra de Zancara. Regarding fieldwork, 31+ male Reed Buntings were sound recorded and 30 playback experiments were performed. Of wild mammals the best records were probably Roe deer at Zafra de Zancara and Striped Dolphin at Cap de Tortosa. Reptilian highlights included Hermann’s Tortoise and Loggerhead Turtle at Ebro Delta. Apple snail was elected the most notorious invertebrate seen.

Introduction: My first visit to Ebro Delta was in late September 1996, with Carlos Noivo and Pedro Faria (cf. Gutiérrez & Gordinho 1996). We had our first ever Slender-billed gull there on September the 27th. It was a delight to be back 16 years later and to focus on the palustrine habitats that we had neglected before.

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Itinerary (Total traveling distance 3778.5 km):

22-May: Lisbon (7 AM) – A6 to Elvas – A5 to Mérida – N-430 to Ciudad Real (stops east of Santa Amalia around 12:30 and at Embalse García de Sola 2-2:30 PM) – A-43 to Daimiel – Tablas de Daimiel (6:10-9 PM) – Dinner and night at Las Brujas (Daimiel).

23-May: Daimiel – A-43 to Manzanares – N-430 to Albacete – N-322 to Requena – A3 to Valencia – A7 to Castelló(n) – N340 to Amposta – TV-3454 to Deltebre (12:30 AM – 1 PM) - 2 PM lunch at Nicanor – 3 PM meeting with Toni Curcó at the Park head office (inc visit to Canal Vell Biological Station with Laura to know the facilities and drop-off luggage) – 6:30-9 PM Riet Vell – Dinner and night at Canal Vell (as in the next 11 days).

24-May: Canal Vell (6:38-7 AM) – Riet Vell (7:30-8:45) – els Muntells (9 AM, meeting with David Bigas) – Illa de Buda (9:30 AM-1:30 PM, meeting with landowner and some workers plus area recon with David) – PM at Canal Vell.

25-May: Fieldwork at Illa de Buda (6:30 AM to 1:30 PM) – Birding at Canal Vell (7:30-8:30 PM).

26-May: Fieldwork at Illa de Buda (6:30 AM to 1:30 PM) – Birding at Canal Vell (7:30-8:30 PM).

27-May: Fieldwork at Illa de Buda (6 AM to 1 PM) – Lunch with David, Susana and Toni – Birding at Canal Vell (7:30-8:30 PM) – 1st talk with Yago (ringing at Canal Vell 6-12:30 AM the next day).

28-May: Fieldwork at Illa de Buda (5:30 AM to 10 AM) – 1st visit to Vilacoto (11 AM to 1 PM) – Seawatching from Platja de la Marquesa (6:50-9 PM).

29-May: Birding at Encanyissada (up to 7:30 AM) – 2nd visit to Vilacoto (7:45 AM, missed Señor Angel again...) – l'Ametlla de Mar (8:50-12 AM) – Tortoise watching at Canal Vell (3 PM) – 3rd visit to Vilacoto and meeting with Señor Angel (7:30-9:30 PM).

30-May: Canal Vell (5:30) – Fieldwork at Vilacoto (6 AM to 1:30 PM, inc talk with Sofia and Javi) – l'Ametlla de Mar (7:15-9:40 PM) – Canal Vell (10:30 PM, completed the 1st 2,000 km).

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31-May: Fieldwork at Vilacoto (5:30 to 10:30 AM) – la Tancada, Barra del Trabucador, Salines de la Trinitat (11 AM to 1 PM) – Lunch with David – Seawatching from Platja de la Marquesa (7:30-9 PM).

01-Jun: Canal Vell (5:15 AM) - Fieldwork at Vilacoto (5:30 to 10:30 AM) – la Tancada and Salines de Sant Antoni (11 AM to 1 PM) – la Tancada and l'Encanyissada (7:30-21 PM).

02-Jun: Fieldwork at Vilacoto (7:20 to 11:40 AM) – el Clot (12 AM) – coffee with David and Toni – l'Encanyissada heronry (partial) count (6:50-9:50 PM).

03-Jun (strong showers, see below): Salines de la Trinitat – Tower hide at Platja de la Costa de Fora (2 x 1.5 km on foot, 7-9:15 AM) and Plataforma del Trabucador “oasis” (single bunch of tall dense bushes in the sand dunes – also used as a outdoor WC by campers, providing extra fertility...) – Fieldwork at Vilacoto (10:45 AM to 13:30 PM).

04-Jun: Canal Vell (6:30 AM) – Deltebre – N-340 – A7/E15 – Valencia – Requena – Utiel – Alarcón – A3/NIII/E901 – Zafra de Záncara (11:30 AM- 4 PM) – A3/NIII/E901 – N-420 – Alcázar de San Juan – N-420 – Daimiel – Tablas (8-9 PM) – Dinner and night at Las Brujas

05-Jun: 22-May path reversed, inc stop at García de Sola (9:50-10:30 AM).

Itinerary note: Deltebre – Crossroad to Canal Vell = 6 km; Crossroad – Canal Vell = 900 m.

Field effort: About 7 hours/day were spent working with the reed buntings and 3 hours/day were spent birding. On the four days spent traveling no fieldwork was done. Overall 77 hours of fieldwork and 45 hours of birding were conducted, with a grand total of about 122 hours.

UTM 10x10 km: CF00 (S Deltebre), CF01 (NW Deltebre), CF10 (Eucaliptus - Buda), CF11 (Fangar – Riumar), CF21 (Illa de Sant Antoni + sea), CE09 (Salines de la Trinitat), BF90 (S Amposta inc Vilacoto).

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Weather conditions: At Ebro Delta temperature changed very little, going from 19° C at 4:30 AM to 25° C at about 4 PM (min. 18° C on the 30th, max. 27° C on the 28th). Little rain; just a few night showers between the 28th and the 29th of May, and some morning showers on the 3rd of June. Weather at Zafra de Zancara and Daimiel much more impetuous, with temperatures going from under 16° C to above 31° C. Some fog at Buda on the 24th around 10 AM and at Vilacoto on the 30th around 8 AM.

On-line support material

Photos: <http://www.flickr.com/photos/lgordinho>

Video and audio: <http://www.youtube.com/user/lgordinho2012>

My work: <http://tinyurl.com/cibio-lgordinho> and <http://www.researcherid.com/rid/C-9164-2009>

Expenses: Because I had some support from the Park, allowing me to sleep and to cook breakfast and dinner at the Biological Station, it was possible to save a lot on lodging and restaurants (Fig. 1). This explains why fuel (370 €) accounted for such a large proportion of the overall budget (705 €). If you are visiting Ebro Delta on holidays, you should expect a rather different budget structure.

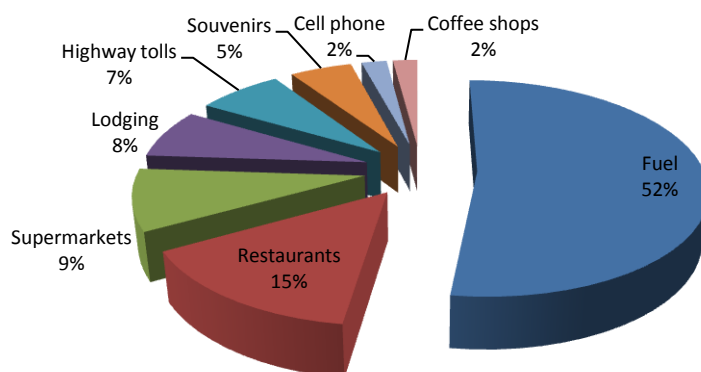


Fig. 1. Proportion of expenses in eight different categories for the current trip (overall budget = 705 €).

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Minor setbacks: I burned a car headlight on the 25th around 5 AM but managed to change it myself in the afternoon, therefore avoiding a ticket by any local Ronaldo and/or Mourinho hating authorities! Also some (all?) highways don't accept Portuguese debit cards for toll payment (e.g. A-7 between Barcelona and Valencia) and in some (all?) supermarkets (e.g. Dia at Deltebre) if you shop under 12 Euros, you can't pay with a debit card. Make sure you have enough cash for all this situations. ATMs (cajeros) do tend to work very well.

Music: Unless you are a big fan of Spanish music and of people speaking Català and Castellano on the radio all the time, I do recommend that you bring some of your own music to a 15 days trip like mine. However, you will certainly want to listen to some of the local radio stations. From the ones you can pick out from Ebro Delta without an external antenna (I tend not to use the antenna while doing fieldwork), I suggest RAC105 and DIAL: more foreign music and less talk!

Food: Deltebre has two big supermarkets (Dia near the Park head office and Ecomuseum and Mercadona near the center) so you can buy lots of stuff there. Also, you may consider having lunch at a restaurant since the "Menú del Dia" is not that expensive (around 10 Euros inc 2 dishes, dessert and a drink) and it is a good chance to try local food (including laborious dishes less easy to prepare outside your own kitchen). Make sure you have some paellas, mussels (Mediterranean ones seem to have a less orange pulp and a milder flavor but are excellent nevertheless), fried sea fish, squid, fideoadas (like a paella done with pasta), morcillas de arròs, menjarblanc and pastisset (sweet pumpkin pastry).

Souvenirs: You can buy bird-related souvenirs at the park, near the Deltebre ecomuseum, and at the SEO store in Riet Vell (at this time open only during the weekends).

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Systematic lists

Aves birds

Anatidae ducks

1. *Anser anser* Greylag Goose – 54 adults and 23 chicks on the left bank of Guadiana river near Tablas de Daimiel. Some adults had a somewhat pinkish-orange bill but nothing like the pink bill of the putative Siberian Greylag Goose (*A a rubrirostris*) seen nearby last winter.
2. *Tadorna tadorna* Common Shelduck – 8 at Illa de Buda on the 24th and 9 on the 28th, 2 at Vilacoto on the 30th and on June the 2nd, 8 at el Clot on June the 2nd.
3. *Netta rufina* Red-crested Pochard – 4 seen at Tablas de Daimiel on the 22nd, 1 at Riet Vell on the 23rd, 1 female with 3 chicks at el Riu Vell (Illa de Buda) on the 27th, hundreds at Bassa de l'Estrella (Canal Vell) on the 27th, a few at El Clot on the 29th, 7 at Vilacoto on May the 30th and the 31st and on June the 1st when a female with two large but unfeathered chicks and another with five were seen and sound recorded, 1 male flying over sea far from the coast seen from Platja de la Marquesa on the 31st, 17+ at la Tancada on June the 1st, 3 at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
4. *Aythya ferina* Common Pochard – 6 seen at Tablas de Daimiel on the 22nd (from the passarellas, inc. males displaying, copulations, etc.), 3 females at Tablas de Daimiel (near Casa de los Pinillas, i.e. different birds) on June the 4th.
5. *Anas strepera* Gadwall – 6 seen at Tablas de Daimiel on the 22nd, several at Riet Vell on the 23rd, 3 at the flooded pasture in Illa de Buda on the 25th, a few at Canal Vell on the 25th, 1 at Vilacoto on the 31st, a few at la Tancada on June the 1st.
6. *Anas platyrhynchos* Mallard – A few at Santa Amália and Tablas de Daimiel on the 22nd, several between Amposta and Deltebre and at Riet Vell on the 23rd, several at Canal Vell on the 24th, hundreds at Bassa de l'Estrella (Canal Vell) on the 27th, 9 swimming at sea in front of Platja de la Marquesa on the 28th (5 of them far out!), several at El Clot on the 29th, 100+ at Vilacoto on the 30th, 31st and June the 2nd including 6+ females with +/-8 chicks each (nice recordings of chick calls – “the chiffchaff song sang with a wader-like voice”!); a few at sea west of Barra del Trabucador on the 31st.

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7. *Anas querquedula* Garganey – One male at the flooded pasture grazed by Camargue horses in Illa de Buda on the 25th.
8. *Anas crecca* Common Teal – One male at the flooded pasture grazed by Camargue horses in Illa de Buda on the 25th.

Phasianidae pheasants

9. *Alectoris rufa* Red-legged Partridge – 1 seen at Tablas de Daimiel on the 22nd, 2 ads flushed from under bushes at Zafra de Záncara on June the 4th (no food or water on the stations present at the site).

Procellariidae petrels

(*Calonectris diomedea* Scopoli's Shearwater – According to David Bigas they are seen from L'Ametlla de Mar only following large ships that enter the harbor after lunch but only up to 5 PM. After that, only small ships with sardine arrive, and these are not followed by shearwaters. The mussel platform boat "Dulce Santa Maria" that arrives at 9:30 PM is not followed either, of course.)

10. *Puffinus mauretanicus* Balearic Shearwater – 1 flying southeast over sea near the coast seen from Platja de la Marquesa on the 28th. Very dark and pot-bellied – ID straightforward.

Hydrobatidae storm petrels

11. *Hydrobates melitensis* Mediterranean Storm Petrel – 1 flying southwest and 2 feeding and moving back a forth seen for a long period off L'Ametlla de Mar fishing harbor (ca. 700 m East of the main jetty) on the 29th (see video). White rump much more conspicuous than white underwing bar. Bill thickness impossible to evaluate at this distance (ID based in geographic distribution and date only). 2 following the ship Galdiri II around 9 PM and one flying alone by at 9:15 PM off L'Ametlla de Mar on the 30th.

Sulidae gannets

12. *Morus bassanus* Northern Gannet – 3 birds (1-2cy + 2-3cy) flying southeast over sea seen from Platja de la Marquesa on the 28th (6:50-9 PM), 2-2cy flying southwest over the sea close to shore seen from Costa de Fora beach on June the 3rd.

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Phalacrocoracidae cormorants

13. *Phalacrocorax carbo* Great Cormorant – Two nests at Daimiel heronry on the 22nd, presumably of Continental Great Cormorant (*P c sinensis*). Breeders, however, had very little white plumage on their heads, perhaps suggesting subadult birds (D. Bigas com. pess.). Also recorded at Riet Vell on the 24th, at Illa de Buda on the 25th, 2 flying over the sea seen from Platja de la Marquesa on the 28th, 1 imm at la Tancada on June the 1st (cf. photo).
14. *Phalacrocorax aristotelis desmarestii* Mediterranean Shag – 5+ at sea off L'Ametlla de Mar fishing harbor on the 29th and 10 on the 30th (inc 1ad + 1very white bellied imm seen very close in flight).

Ardeidae herons

15. *Ixobrychus minutus* Little Bittern – Recorded at Riet Vell on the 23rd, Canal Vell on the 24th, 1 ad male at Vilacoto on June the 2nd (but Little Bittern rare at Vilacoto and very common at Riet Vell, Canal Vell, Illa de Buda, el Clot, etc.), 2 at el Clot on June the 2nd, 1 singing at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
16. *Nycticorax nycticorax* Black-crowned Night Heron – On the 22nd 1 ad in flight seen from the bridge over Guadiana river near Badajoz around 11 AM and 25+ in Guadiana river near Tablas de Daimiel around 7 PM, a few at Riet Vell on the 23rd and 24th, at Canal Vell on the 24th, at Illa de Buda on the 25th, 2 flying southeast over sea (far out!) seen from Platja de la Marquesa on the 28th, at El Clot on the 29th, 5 at Vilacoto on the 30th (probably breeding), 1 fully fledged juvenile flying at Vilacoto on June the 2nd, 1ad in flight and several calling in Guadiana river near Tablas de Daimiel on June the 4th. One captive adult at the Animal Rescue Center in Canal Vell Biological Station during all my stay.
17. *Ardeola ralloides* Squacco Heron – Recorded at Tablas de Daimiel on the 22nd, Riet Vell on the 23rd, at El Clot on the 29th, 10 at Vilacoto on the 30th (probably breeding).
18. *Bubulcus ibis* Cattle Egret – Recorded at Santa Amália and Tablas de Daimiel on May the 22nd and again at Daimiel on June the 4th, 7 at Illa de Buda on the 28th.

(*Egretta gularis* x *Egretta garzetta* Western Reef Heron x Little Egret hybrid – According to David Bigas, one such hybrid had been seen recently between la Tancada and the sea. I searched for it there and at the l'Encanyissada heronry and roost up to dusk, but without success. Maybe it was feeding elsewhere at the time and entered de colony only after dark,

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or didn't enter the colony at all. I've been seeing such hybrids in Portugal since 1997, so it was not a big disappointment do miss this one.)

19. *Egretta garzetta* Little Egret – A few at Santa Amália, Embalse García de Sola and Tablas de Daimiel on the 22nd, at Canall Vell on the 24th, at El Clot on the 29th, in western Barra del Trabucador on the 31st, a few south of la Tancada on June the 1st, large colony + roost at l'Encanyissada monitored late in the afternoon on June the 2nd (a clouded day) when the first flocks arrived at 8:15 PM, flock of 10+ traveling from colony/roost to feeding area/s over Embalse García de Sola on the 5th.
20. *Casmerodius albus* Western Great Egret – 1 at Tablas de Daimiel on the 22nd (black bill, blue-green lores, straw colored tibiae and blackish tarsi), 1 at Illa de Buda on the 24th, 2 on the 25th (orange bill – non breeders or breeding sub-ads?) and 3 on the 26th (inc 1 black-billed bird), 1 at El Clot seen from Mirador de l'Embut on the 29th, 2 at Vilacoto on the 30th and 1 on June the 2nd, min 6 at el Clot on June the 2nd (only one with black bill), 19 entering the egret colony and roost at el Clot late in the afternoon on June the 2nd.
21. *Ardea cinerea* Grey Heron – 1 ad at Daimiel heronry on the 22nd, 2 at Riet Vell on the 23rd, a few at Illa de Buda on the 25th and 27th, 3 flying northwest over sea seen from Platja de la Marquesa on the 28th, at El Clot on the 29th, 8 at the mussel platforms off L'Ametlla de Mar fishing harbor on the 29th and 30th (they arrive late in the afternoon and leave in the morning), at Vilacoto on the 30th, a few south of la Tancada on June the 1st, a few again at Daimiel on June the 4th.
22. *Ardea purpurea* Purple Heron – Recorded at Tablas de Daimiel on the 22nd, at Riet Vell on the 23rd, at Canal Vell on the 24th, at El Clot on the 29th, at Vilacoto on the 30th, etc.

Ciconiidae storks

23. *Ciconia nigra* Black Stork – 2 ads. above Embalse García de Sola on May the 22nd around 2 PM, one adult at the same site on June the 5th around 10 AM (video).
24. *Ciconia ciconia* White Stork – A few East of Santa Amália feeding on flooded rice paddies and 15+ nesting near Molino del Molemocho (Daimiel) on the 22nd, 2 at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.

Threskiornithidae ibises

25. *Plegadis falcinellus* Glossy Ibis – 2 seen at Tablas de Daimiel on the 22nd (inc. at heronry but no nest seen), 1 at Riet Vell on the 23rd, a few at Canal Vell on the 24th, 15

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entering the egret colony and roost at el Clot late in the afternoon on June the 2nd, 30 between Deltebre and Amposta on June the 4th.

26. *Platalea leucorodia* Eurasian Spoonbill – Recorded at Daimiel on the 22nd (inc. bird building nest).

Phoenicopteridae flamingos

27. *Phoenicopterus roseus* Greater Flamingo – A flock at Riet Vell on the 23rd, 150 seen in flight over Illa de Buda on the 25th, 100 at El Clot seen from Mirador de l'Embut on the 29th, 544 at la Tancada on June the 1st, 15 on the coastline south of la Tancada on June the 1st, 2 captive adults (male and female) at the Animal Rescue Center in Canal Vell Biological Station during all my stay.

(*Phoenicopterus minor* Lesser Flamingo – According to David Bigas, up to three birds have been present at Punta de la Banya Greater Flamingo colony. Long distance scanning with 45x telescope from the tower hide at Costa de Fora beach, south of Salines de la Trinitat, on June the 3rd didn't provide any records. Having seen the species in Portugal and Spain several times in the past, this was no major disappointment either.)

Podicipedidae grebes

28. *Tachybaptus ruficollis* Little Grebe – A few at Tablas de Daimiel on the 22nd, Riet Vell on the 23rd, Canal Vell on the 24th, Vilacoto on June the 1st, a few calling at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
29. *Podiceps cristatus* Great Crested Grebe – A few at Tablas de Daimiel on May the 22nd and again on June the 4th, at Canal Vell and Illa de Buda on the 24th, 4 ads at Canal Vell on the 27th, 16 at la Tancada on June the 1st.

Accipitridae hawks

30. *Pernis apivorus* European Honey Buzzard – One at the Animal Rescue Center on June the 3rd. It had been caught near Bitem (Tortosa), about 16 km northwest of Ebro Delta Natural Park.
31. *Elanus caeruleus* Black-winged Kite – 1 seen from A6 near km 78 at 9:20 AM on the 22nd.
32. *Milvus migrans* Black Kite – 4 seen from A6 between km's 36 & 40 around 9 AM on the 22nd, 1 seen from A3 around km 188 at 8:50 AM on the 23rd, 1 at Zafra de Záncara on

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- June the 4th. One captive adult at the Animal Rescue Center in Canal Vell Biological Station during all my stay.
33. *Neophron percnopterus* Egyptian Vulture – One adult near Embalse García de Sola around 2 PM on May the 22nd and again around 10 AM on June the 5th (video).
34. *Gyps fulvus* Griffon Vulture – 35+ seen near the cliffs above Embalse García de Sola on the 22nd (2 PM) and on the 5th (video). First flight out of the colony around 10 AM. One captive adult at the Animal Rescue Center in Canal Vell Biological Station during all my stay.
35. *Aegypius monachus* Cinereous Vulture – One near Acedera on May the 22nd around 1:30 PM, one above Canal de Orellana, East of Gargáligos (N-430, between km 129 and km 130) around 11:50 AM on June the 5th (video).
36. *Circaetus gallicus* Short-toed Snake Eagle – One carrying a snake near the cliffs above Embalse García de Sola around 2 PM on the 22nd, 1+ at Zafra de Záncara on June the 4th. One bird with a wounded wing arrived the Animal Rescue Center at Canal Vell Biological Station in the last days of my stay.
37. *Circus aeruginosus* Western Marsh Harrier – 1 male seen at Tablas de Daimiel on the 22nd, 3+ at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
38. *Circus pygargus* Montagu's Harrier – One male in flight near Gargáligos on May the 22nd.
39. *Buteo buteo* Common Buzzard – 1+ west of Embalse García de Sola on the 5th (video).
40. *Aquila pennata* Booted Eagle – 1 pale morph near Valverde (N-430, km 294) on the 22nd.

Falconidae falcons

41. *Falco naumanni* Lesser Kestrel – 5 East of Santa Amália on the 22nd.
42. *Falco tinnunculus* Common Kestrel – 2 seen at Tablas de Daimiel on the 22nd, 1 at Riet Vell on the 23rd, 1 at Illa de Buda on the 25th, 2 at Vilacoto on the 29th and 31st when I caught an adult male unharmed but totally drenched and therefore temporarily unable to fly (it got dry and flew off a few hours later), 1 at Salines de Sant Antoni on June the 1st, at el Clot on June the 2nd. One captive at the Animal Rescue Center in Canal Vell Biological Station during all my stay.

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Rallidae rails

43. *Rallus aquaticus* Water Rail – Heard at Tablas de Daimiel on the 22nd, Canal Vell on the 24th, Illa de Buda on the 25th to 27th (nice sound recordings of male *song* – not the “pig squeal”) and Vilacoto on the 30th.
44. *Porzana parva* Little Crake – One adult female was seen feeding among a sparse *Typha* stand at Riet Vell on the 23rd around 8 PM (see video).
45. *Porzana pusilla* Baillon’s Crake (presumably *P p intermedia* Western Baillon’s Crake) – One male singing for short periods near the hide at Riet Vell on the 23rd and 24th after 8 PM and before 8 AM. Possible males singing briefly at Canal Vell on the 25th and Illa de Buda on the 27th could not be confirmed.
46. *Gallinula chloropus* Common Moorhen – Several East of Santa Amália and at Tablas de Daimiel on the 22nd and again at Daimiel on June the 4th (inc small chick), 100+ at Riet Vell on the 23rd, at Canal Vell on the 24th, at El Clot on the 29th, 100+ at Vilacoto on the 31st.
47. *Porphyrio porphyrio* Western Swamphen – Many at Riet Vell on the 23rd (inc ads and chicks), at Canal Vell on the 24th, at El Clot on the 29th, 5+ at Vilacoto on June the 1st (inc 1+ radio-tagged and followed by Sofia Rivaes *et al.*), 5+ at el Clot late in the afternoon on June the 2nd, 1 calling at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
48. *Fulica atra* Eurasian Coot – Many at Tablas de Daimiel on May the 22nd and June the 4th, Riet Vell on the 23rd, Canal Vell on the 24th, Illa de Buda on the 25th to 27th, hundreds at Bassa de l’Estrella (Canal Vell) on the 27th, at El Clot on the 29th, 10+ at Vilacoto on the 31st, a few at la Tancada on June the 1st.

Haematopodidae oystercatchers

49. *Haematopus ostralegus* Eurasian Oystercatcher – 2 at Cap de Tortosa on the 25th, 3 in the western side of Barra del Trabucador on the 31st, and 2 on June the 3rd, 1 at Salines de Sant Antoni on June the 1st.

Recurvirostridae stilts

50. *Himantopus himantopus* Black-winged Stilt – Several East of Santa Amália and 5+ at Tablas de Daimiel on the 22nd, a few between Amposta and Deltebre and at Riet Vell on the 23rd, 9 ads flying southeast over sea near the coast seen from Platja de la Marquesa on the 31st.

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51. *Recurvirostra avosetta* Pied Avocet – A few at Riet Vell on the 23rd, Illa de Buda on the 24th, a few at Salines de Sant Antoni (inc. pair with 3 chicks) on June the 1st.

Glareolidae pratincoles

52. *Glareola pratincola* Collared Pratincole – A few seen around Santa Amalia on the 22nd, heard at Canal Vell on the 24th, at Illa de Buda on the 25th, at El Clot on the 29th, 4 at Vilacoto on the 30th and on June the 3rd (aggressive behavior towards humans - probably breeding), heard at Barra del Trabucador on June the 3rd.

Charadriidae plovers

53. *Charadrius dubius* Little Ringed Plover – A few East of Santa Amália on the 22nd, 1 calling heard from Platja de la Marquesa on the 31st, one “singing” at Vilacoto on June the 3rd.
54. *Charadrius hiaticula* Common Ringed Plover – 1 at Salines de Sant Antoni on June the 1st.
55. *Charadrius alexandrinus* Kentish Plover – 5 at Cap de Tortosa on the 25th, 3 at Platja de la Marquesa on the 28th, at El Clot on the 29th, 3 at Vilacoto on the 30th (probably breeding), a few south of la Tancada on June the 1st, 2 ads and a large juvenile at Barra del Trabucador on June the 3rd.
56. *Pluvialis squatarola* Grey Plover – 2 at Cap de Tortosa on the 25th, 1 on the coastline south of la Tancada on June the 1st.

Scolopacidae sandpipers

57. *Calidris alba* Sanderling – One at Cap de Tortosa on the 25th.

(*Tryngites subruficollis* Buff-breasted Sandpiper – David Bigas told me the exact spot where a flock took residence last autumn: it is a large irrigated field where grass for gardens and golf courses is produced. It is located in an area named “la Comandanta” in the 1:30,000 map mentioned in the references.)

58. *Numenius arquata* Eurasian Curlew – 2 south of la Tancada on June the 1st.
59. *Actitis hypoleucos* Common Sandpiper – A few East of Santa Amália and at Tablas de Daimiel on the 22nd.
60. *Tringa nebularia* Common Greenshank – Heard at Riet Vell on the 23rd, Illa de Buda on the 24th, 1 at Cap de Tortosa on the 25th.

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61. *Tringa glareola* Wood Sandpiper – One at the flooded pasture grazed by Camargue horses in Illa de Buda on the 25th and 26th, two at the same site on the 28th.
62. *Tringa totanus* Common Redshank – Recorded at Illa de Buda on the 24th, 25th, 27th and 28th (4+ birds, inc. 1 male doing a song flight in the southeastern part of the island: gliding, wing quivering, etc.), 1 at Canal Vell on the 25th, 1 heard from Platja de la Marquesa during seawatch on the 28th, 2 in western Barra del Trabucador on the 31st, a few south of la Tancada on June the 1st.
63. *Arenaria interpres* Ruddy Turnstone – One at Cap de Tortosa on the 25th.

Stercorariidae skuas

64. *Stercorarius skua* Great Skua – One flying southeast over sea far from the coast seen from Platja de la Marquesa on the 31st.

Laridae gulls

65. *Chroicocephalus genei* Slender-billed Gull – 2 ads near the southernmost hide in Illa de Buda on the 24th, 5+ ads in the western of side Barra del Trabucador on the 31st (photos), 40 at Salines de Sant Antoni on June the 1st, 2 at el Clot on June the 2nd, one beautiful black-billed 1st-summer at Barra del Trabucador on June the 3rd.
66. *Chroicocephalus ridibundus* Black-headed Gull – A few at Tablas de Daimiel on May the 22nd and on June the 4th, between Amposta and Deltebre on the 23rd, at Canal Vell on the 24th, at El Clot on the 29th, 40 at Vilacoto on the 30th.
67. *Larus melanocephalus* Mediterranean Gull – 1 ad flying southeast over sea far from the coast seen from Platja de la Marquesa on the 31st, 2-1st summer at Salines de Sant Antoni on June the 1st.
68. *Larus audouinii* Audouin's Gull – A few between Amposta and Deltebre and at Riet Vell on the 23rd, at Canal Vell on the 24th (landing above the large aviary where 4+ sick Audouin's were kept – see photo), 160+ at L'Ametlla de Mar fishing harbor on the 29th and 15 on the 30th (mostly adults) when a local kid was seen line fishing one, killing it by stepping on its head several times and throwing the corpse on the water, 4 at Vilacoto on the 30th (probably breeding), 10+ at Barra del Trabucador and many pairs with 2 or 3 small unfeathered chicks each at Salines de la Trinitat on the 31st.
69. *Larus fuscus* Lesser Black-backed Gull (probably *L f graellsii/intermedius*) – 1-2cy + 2ads at the ricefields north of el Clot (ads probably a pair, with female sitting on a pile of

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dry grass in a small dike but no eggs or young), a few at southern Salines de la Trinitat seen from the tower hide at Costa de Fora beach on June the 3rd.

70. *Larus michahellis* Yellow-legged Gull – A few feeding on rice fields between Amposta and Deltebre around 1 PM on the 23rd, 1 ad at Riet Vell on the 23rd, 5+ flying southeast over sea seen from Platja de la Marquesa on the 28th and 31st, at El Clot on the 29th, 25+ at L’Ametlla de Mar fishing harbor on the 29th and 2+ on the 30th (mostly adults), a few in western Barra del Trabucador on the 31st, at Salines de Sant Antoni on June the 1st. It is always useful to remind one-self that adult Yellow-legged Gull mantle looks much darker when seen from behind than when seen side-on (at least in strong sunlight directly from above or slightly in front).

Sternidae terns

71. *Sternula albifrons* Little Tern – 2 near Cap de Tortosa on the 25th, 5 flying southeast over sea close to shore seen from Platja de la Marquesa on the 28th, 23 at Vilacoto (photos + video) on the 30th (probably breeding), 2 at Salines de Sant Antoni on June the 1st.
72. *Gelochelidon nilotica* Gull-billed Tern – 6 East of Santa Amália on the 22nd around 12:30 AM, a few between Amposta and Deltebre and at Riet Vell on the 23rd, a few at Illa de Buda on the 25th and 27th.
73. *Hydroprogne caspia* Caspian Tern – 7 at Salines de Sant Antoni on June the 1st (photos).
74. *Chlidonias hybrida* Whiskered Tern – 15+ at Tablas de Daimiel on the 22nd, a few between Amposta and Deltebre and at Riet Vell on the 23rd, several at Canal Vell on the 24th, at El Clot on the 29th, 13 at Vilacoto on the 30th, 31st, and June the 1st (see photos, video and sound recordings), 22 at la Tancada on June the 1st, large flocks (e.g. 62 + 17) flying West over el Clot late in the afternoon on June the 2nd.
75. *Sterna sandvicensis* Sandwich Tern – 35 at Illa de Buda on the 24th, 6 flying past Cap the Tortosa on the 25th, 10+ flying southeast over sea seen from Platja de la Marquesa on the 28th, a few at L’Ametlla de Mar fishing harbor on the 29th, 50+ in the western of side Barra del Trabucador on the 31st (photos), flock of 200+ fishing off shore seen from Platja de la Marquesa on the 31st (video), 22 at Salines de Sant Antoni on June the 1st, 390 birds in two colonies (325+65) at southern Salines de la Trinitat seen from the tower hide at Costa de Fora beach on June the 3rd.

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(*Sterna bengalensis* Lesser Crested Tern – According to David, one or two pure birds and a few hybrids are regularly seen at Punta de la Banya tern colony. Yago mentioned that one pure individual is also sometimes seen at the tern colony near Punta del Fangar. I did some serious tern-checking at southern Salines de la Trinitat from the tower hide at Costa de Fora beach on June the 3rd but didn't come across any suspicious tern. I did find and photograph a Lesser Crested Tern near Lisbon on 23-Ago-2011, so no harm done.)

76. *Sterna hirundo* Common Tern – A few feeding on rice fields between Amposta and Deltebre on the 23rd, several pairs incubating at Riet Vell on the 23rd (see video), several at Canal Vell on the 24th, one heard at Platja de la Marquesa on the 28th, 3+ at L'Ametlla de Mar fishing harbor on the 29th, 4 at Vilacoto on the 30th (probably breeding), 2 in the western of side Barra del Trabucador on the 31st (photos), 2 at Salines de Sant Antoni on June the 1st, at el Clot on June the 2nd.

Columbidae doves

77. *Columba livia* Common Pigeon – A few at Embalse García de Sola and Tablas de Daimiel on the 22nd, and again at García de Sola on June the 5th, a few between Amposta and Deltebre around 1 PM on the 23rd, 15+ at L'Ametlla de Mar fishing harbor on the 29th and 30th, a few at Tablas de Daimiel on June the 4th.

78. *Columba palumbus* Common Wood Pigeon – A few at Embalse García de Sola and Tablas de Daimiel on the 22nd and again on Daimiel on June the 4th and at García de Sola on June the 5th, 2 at Vilacoto on the 30th, a few at Zafra de Záncara on June the 4th.

79. *Streptopelia decaocto* Eurasian Collared Dove – Several at Tablas de Daimiel on May the 22nd and June the 4th, Illa de Buda on the 24th, and Vilacoto on June the 1st.

80. *Streptopelia turtur* European Turtle Dove – One migrant with local Collared Doves at Illa de Buda on the 24th, 1 seen at Zafra de Záncara on June the 4th.

Cuculidae cuckoos

81. *Clamator glandarius* Great Spotted Cuckoo – 1 singing at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.

82. *Cuculus canorus* Common Cuckoo – 1+ singing at Illa de Buda on the 24th, 1 singing at Zafra de Záncara on June the 4th.

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Strigidae owls

83. *Otus scops* Eurasian Scops Owl – 5+ singing at Tablas de Daimiel on the 22nd, first heard around 6:20 PM; playback with male song elicited male-male counter singing but no approach, playback with female song elicited strong reaction from blackbirds (close approach, alarm calls, etc.).
84. *Bubo bubo* Eurasian Eagle-Owl – One captive adult at the Animal Rescue Center in Canal Vell Biological Station during all my stay.
85. *Athene noctua* Little Owl (*A n vidalii* Western Little Owl) – 1 seen at Tablas de Daimiel on the 22nd. One captive adult at the Animal Rescue Center in Canal Vell Biological Station during all my stay (damaged plumage).
86. *Asio otus* Long-eared Owl – One young (about 4 weeks old) held at the Animal Rescue Center in Canal Vell Biological Station during all my stay.

Apodidae swifts

87. *Apus apus* Common Swift – A few near Molino del Molemocho (Tablas de Daimiel) on June the 4th.
88. *Apus pallidus* Pallid Swift – Several seen at Tablas de Daimiel on the 22nd, a few at Illa de Buda on the 25th, many at L'Ametlla de Mar on the 29th and 150+ on the 30th (plus one corpse collected), one calling at Zafra de Zánacara on June the 4th.
89. *Apus melba* Alpine Swift – One seen from the bridge over river Guadiana near Mérida on the 22nd, one calling over Embalse García de Sola on June the 5th around 10 AM.

Meropidae bee-eaters

90. *Merops apiaster* European Bee-eater – 2+ calling at Tablas de Daimiel on the 22nd, 1+ calling in flight over Illa de Buda on the 28th (migrant?) and over Platja de la Marquesa on the 31st, 1+ at Zafra de Zánacara on June the 4th.

Coraciidae rollers

91. *Coracias garrulus* European Roller – 2 ads near Molino de Molemocho (Daimiel) around 7 PM on the 22nd.

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Upupidae hoopoes

92. *Upupa epops* Eurasian Hoopoe – A few East of Santa Amália, near Embalse García de Sola and at Tablas de Daimiel on the 22nd, at Riet Vell on the 24th, 4+ at Vilacoto on the 30th and 1st, a few at Zafra de Zánacara on June the 4th, a few at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.

Picidae woodpeckers

93. *Picus sharpei* Iberian Green Woodpecker – One near Embalse García de Sola around 2 PM on the 22nd, 1 at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.

Oriolidae orioles

94. *Oriolus oriolus* Eurasian Golden Oriole – 2 ads and 1 nest on the poplars near Molino del Molemocho (Daimiel) on May the 22nd and on June the 4th, 1 male singing at Vilacoto on the 31st and at Zafra de Zánacara on June the 4th, 1 singing near Embalse García de Sola on the 5th.

Laniidae shrikes

95. *Lanius meridionalis* Iberian Grey Shrike – A few East of Santa Amália on the 22nd.
96. *Lanius senator* Woodchat Shrike – 3 pairs at Zafra de Zánacara on June the 4th.

Corvidae crows

97. *Pyrrhocorax pyrrhocorax* Red-billed Chough – 2 ads on the cliffs above Embalse García de Sola around 2 PM on the 22nd.
98. *Cyanopica cooki* Iberian Magpie – Several near Embalse García de Sola around 2 PM on May the 22nd, and around 10 AM on June the 5th.
99. *Pica pica* Eurasian Magpie – A few East of Santa Amália and at Tablas de Daimiel on the 22nd, some at Illa de Buda on the 25th, up to 4 at Canal Vell on the 27th (inspecting trash cans), 2 at Vilacoto on the 31st, 1 at Zafra de Zánacara on June the 4th, 1 at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
100. *Garrulus glandarius* Eurasian Jay – A few seen from the road between Lisbon and Ciudad Real but exact sites not recorded.

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101. *Corvus corone* Carrion Crow – A few seen from the road between Lisbon and Ciudad Real but exact sites not recorded.

102. *Corvus corax* Northern Raven – 2 at Zafra de Zánacara on June the 4th.

Remizidae penduline tits

103. *Remiz pendulinus* Eurasian Penduline Tit – One calling at Tablas de Daimiel on the 22nd, one calling at Illa de Buda and 1 ad seen at Canal Vell on the 25th, 1 calling at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.

Paridae tits

104. *Cyanistes caeruleus* European Blue Tit – 1+ calling near Embalse García de Sola on the 5th.

105. *Parus major* Great Tit – Heard at Tablas de Daimiel on the 22nd.

Alaudidae larks

106. *Chersophilus duponti* Dupont's Lark – One flushed at close range at Zafra de Zánacara on June the 4th. In flight it looked like a large silent Woodlark but on the ground it was more reminiscent of a Crested Lark, especially because of the long decurved bill. After landing it did a short run among low thymes and grasses and was not seen again. No songs or calls heard. Next time I must arrive at the site before dawn.

107. *Calandrella brachydactyla* Greater Short-toed Lark – A few East of Santa Amália on the 22nd, 2+ males singing in the Platja de la Tancada area on the 31st, many singing and calling at Zafra de Zánacara on June the 4th (sound recording).

108. *Calandrella rufescens* Lesser Short-toed Lark – 5+ males singing in the Platja de la Tancada area on the 31st (sound recordings + video).

109. *Galerida cristata* Crested Lark – A few at Santa Amália and Tablas de Daimiel on the 22nd and again at Daimiel on June the 4th, a few at Illa de Buda on the 25th, 1 singing at Platja de la Marquesa on the 28th, at El Clot on May the 29th and on June the 2nd, a few at Zafra de Zánacara on June the 4th (especially on agricultural land below the village).

110. *Galerida theklae* Thekla Lark – Several at Zafra de Zánacara on June the 4th, especially on the plateau with natural vegetation above the village.

111. *Alauda arvensis* Eurasian Skylark – Several at Zafra de Zánacara on June the 4th, calling and singing briefly (sound recording).

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Hirundinidae swallows

112. *Riparia riparia* Sand Martin – Around 350 birds (migrants) on the wires above Guadiana river near Tablas de Daimiel on the 22nd, 1+ calling above Illa de Buda on the 28th.
113. *Ptyonoprogne rupestris* Eurasian Crag Martin – A few near Embalse García de Sola around 2 PM on May the 22nd, several at the same site around 10 AM on June the 5th.
114. *Hirundo rustica* Barn Swallow – Several at Tablas de Daimiel on May the 22nd and June the 4th, at Riet Vell on the 23rd, at Canal Vell on the 24th and 27th, at El Clot on the 29th, at Vilacoto on the 30th, etc.
115. *Delichon urbicum* Common House Martin – Several at L’Ametlla de Mar on the 29th and 30th (some visiting nests), many at Piedrabuena on the 5th, several near Embalse García de Sola on the 5th.
116. *Cecropis daurica* Red-rumped Swallow – A few near Embalse García de Sola around 2 PM on May the 22nd and around 10 AM on June the 5th.

Cettiidae bush warblers

117. *Cettia cetti* Cetti’s Warbler – Heard East of Santa Amália and near Embalse García de Sola on May the 22nd and again on García de Sola on June the 5th, 1 singing briefly at Illa de Buda on the 27th, 1 singing at Zafra de Zánacara on June the 4th (near the river with riparian trees below the village), heard near Molino del Molemocho (Tablas de Daimiel) on June the 4th.

Aegithalidae long-tailed tits

118. *Aegithalos caudatus alpinus/europ.* Long-tailed Tit – Heard near Embalse García de Sola around 2 PM on the 22nd.

Sylviidae sylvias

119. *Sylvia conspicillata* Spectacled Warbler – 5+ males singing at Zafra de Zánacara on June the 4th and one nest with five eggs found (photos).
120. *Sylvia melanocephala* Sardinian Warbler – Heard near Embalse García de Sola on May the 22nd, and again on June the 5th, several at Zafra de Zánacara on June the 4th (on taller and denser shrubs than Spectacled Warblers).

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121. *Sylvia hortensis* Western Orphean Warbler – 2+ males singing at Zafrá de Zánacara on June the 4th in holm oak dehesa with very scattered trees (sound recording).
122. *Sylvia communis* Common Whitethroat – One at Canal Vell on the 25th and another on the 27th.
123. *Sylvia borin* Garden Warbler – One seen at Canal Vell on the 26th around 8 PM, another (tail-less!) at Illa de Buda on the 27th.
124. *Sylvia atricapilla* Eurasian Blackcap – Heard near Embalse García de Sola around 2 PM on the 22nd.

Phylloscopidae leaf warblers

(*Phylloscopus sibilatrix* Wood Warbler – Several had been seen and ringed in April, e.g. at Canal Vell and at Trabucador “oasis”, but there were no records during my stay. The wind from the North certainly didn’t help.)

125. *Phylloscopus trochilus* Willow Warbler – One in a hedge of *Tamarix* trees in southern Illa de Buda on the 24th, 4 at Canal Vell on the 26th, 1 at Illa de Buda on the 27th, some rather grayish-white suggesting northern ssp (*acredula* type).

Locustellidae grasshopper warblers

126. *Locustella luscinioides* Savi’s Warbler – 2+ singing at Tablas de Daimiel on the 22nd (near the passarellas), at Canal Vell on the 24th, several at Illa de Buda on the 27th (nice sound recording), 1 singing at Vilacoto on May the 29th and June the 1st, at el Clot on June the 2nd, a few singing at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.

Acrocephalidae reed warblers

127. *Hippolais icterina* Icterine Warbler – One male singing from a tall poplar in one of the main hedges in western Illa de Buda around 12:30 AM on the 24th. Found by David Bigas but sound recorded and seen in detail by me. Song like a very slow *H. polyglotta* with lots of sounds evocative of air being blown across strongly pressed human lips – very distinctive. Bird looked big, long winged, with a stronger supercilium behind the eye, bluer/greyer legs and paler wing panels. I saw it very well in the open during sound recording but, once I set up the telescope and the camera, it didn’t show any more. Not even after playback of its own song using the Marantz recorder and Logitech speaker. Another male singing, this time self-found, was sound recorded and filmed in a *Tamarix* tree of the dike

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around Gran Calaix (also in Illa de Buda but 2.4 km away from the first site) on the 26th and 27th (see video).

128. *Hippolais polyglotta* Melodious Warbler – 1 singing near Molino del Molemocho (Tablas de Daimiel) on the 22nd around 7 PM, 1 singing at Zafra de Záncara on June the 4th (below the village).
129. *Acrocephalus scirpaceus* Eurasian Reed Warbler – Several singing at Tablas de Daimiel on May the 22nd and June the 4th, at Riet Vell on the 23rd, at Canal Vell on the 24th, at Vilacoto on the 30th (inc. pair near nest), one singing from tall and dense bushes at Barra del Trabucador (probable migrant) on June the 3rd (sound recording).
130. *Acrocephalus schoenobaenus* Sedge Warbler – 1 seen feeding 2 m away from the passarellas at Daimiel on the 22nd.
131. *Acrocephalus melanopogon* Moustached Warbler – 1+ heard briefly from the passarellas at Daimiel on the 22nd but, unlike last year (on similar dates), birds were far and not singing continuously.
132. *Acrocephalus arundinaceus* Great Reed Warbler – 2 East of Santa Amália and 10+ at Tablas de Daimiel on May the 22nd and on June the 4th, 3+ at Riet Vell on the 23rd and 24th, a few at Canal Vell on the 24th and 25th, and at El Clot on the 29th.

Cisticolidae cisticola's

133. *Cisticola juncidis* Zitting Cisticola (presumably *C j cisticola* Western Zitting Cisticola) – A few at Tablas de Daimiel on May the 22nd and June the 4th, heard at Canal Vell and Riet Vell on the 23rd, at Canal Vell on the 24th, at Illa de Buda on the 25th (inc one carrying food – confirmed breeding), 1 singing at Platja de la Marquesa on the 28th, at El Clot on the 29th, at Vilacoto on the 30th, etc.

Certhiidae treecreepers

134. *Certhia brachydactyla* Short-toed Treecreeper – A few heard from the road between Lisbon and Ciudad Real (in holm oak dehesas) but exact sites not recorded.

Troglodytidae wrens

135. *Troglodytes troglodytes* Eurasian Wren – A few heard from the road between Lisbon and Ciudad Real (in riparian habitats) but exact sites not recorded.

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Sturnidae starlings

136. *Sturnus unicolor* Spotless Starling – Several East of Santa Amália and at Tablas de Daimiel on the 22nd, a few between Amposta and Deltebre on the 23rd, several at El Clot and at L’Ametlla de Mar on the 29th, 20+ at Vilacoto on May the 30th and June the 1st (including some fully fledged juveniles), 1 singing at Salines de Sant Antoni on June the 1st with some very nice imitations including perfect Cetti’s Warbler songs but repeated too frequently to come from a single individual (photos), 300+ entering a roost in the reedbed at el Clot late in the afternoon on June the 2nd, several at Zafra de Zánacara on June the 4th, 500+ going to roost at Tablas de Daimiel on June the 4th, etc.

Muscicapidae flycatchers

137. *Turdus merula* Common Blackbird – Heard near Embalse García de Sola around 2 PM on the 22nd and around 10 AM on the 5th, a few at Zafra de Zánacara on June the 4th.
138. *Muscicapa striata* Spotted Flycatcher – 1 at the visitors’ car park on Riet Vell and two in Tamarix trees along the Calaix Gran dike (Illa de Buda) on the 24th, 2 at Canal Vell on the 25th.
139. *Erithacus rubecula* European Robin – Heard near Embalse García de Sola around 2 PM on the 22nd.
140. *Luscinia megarhynchos* Common Nightingale – Heard singing near Embalse García de Sola around 2 PM on the 22nd, 1 caught and ringed by Yago at Canal Vell on the 28th, 1+ singing at Zafra de Zánacara on June the 4th (near the river with riparian trees below the village), 1 singing at Tablas de Daimiel (Casa de los Pinillas) on June the 4th.
141. *Phoenicurus phoenicurus* Common Redstart – One in a hedge of *Tamarix* trees in southern Illa de Buda on the 24th and another on the 27th.
142. *Saxicola rubicola* European Stonechat – A few at Santa Amália and Tablas de Daimiel on the 22nd, a few at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
143. *Oenanthe hispanica* Western Black-eared Wheatear – 3+ at Zafra de Zánacara on June the 4th.

Passeridae sparrows

144. *Passer domesticus* House Sparrow – Recorded East of Santa Amália and at Tablas de Daimiel on the 22nd, a few between Amposta and Deltebre and at Riet Vell on the 23rd, several at Canal Vell on the 24th, at Illa de Buda on the 25th and 28th (first male songs at

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6:30 AM), at Platja de la Marquesa on the 28th, at El Clot on the 29th, at L'Ametlla de Mar fishing harbor on the 29th and 30th, at Salines de Sant Antoni on June the 1st, etc.

145. *Passer montanus* Eurasian Tree Sparrow – A few East of Santa Amália on the 22nd, several at Riet Vell on the 23rd and 24th, several at Vilacoto on the 1st, a few at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
146. *Petronia petronia* Rock Sparrow – several at Zafra de Zánacara on June the 4th, very vocal, probably nesting in windmills, engine houses, etc.

Motacillidae wagtails

147. *Motacilla flava* Blue-headed Wagtail – Two birds (male and female) were seen at the dike around Calaix Gran (Illa de Buda) on the 26th.
148. *Motacilla iberiae* Spanish Wagtail – Several at Illa de Buda on the 24th, 25th and 28th, one calling in flight (diurnal migration) over Canal Vell on the 26th and another over Illa de Buda on the 27th, at El Clot on the 29th, many at Vilacoto on the 30th (much higher density than in Canal Vell and Illa de Buda), at Salines de Sant Antoni on June the 1st.
149. *Motacilla cinerea* Grey Wagtail – 1 calling in flight above L'Ametlla de Mar fishing harbor on the 29th.
150. *Motacilla alba* White Wagtail – One East of Santa Amália on the 22nd, one seen from A3 around km 223 at 9:05 AM on the 23rd.
151. *Anthus campestris* Tawny Pipit – 2+ pairs at Zafra de Zánacara on June the 4th, males singing for short periods (sound recording).

Fringillidae finches

152. *Fringilla coelebs* Common Chaffinch – Heard near Embalse García de Sola around 2 PM on the 22nd, 5+ singing around Zafra de Zánacara plateau on June the 4th, a few held at the Animal Rescue Center in Canal Vell Biological Station during all my stay.
153. *Serinus serinus* European Serin – Heard near Embalse García de Sola around 2 PM on the 22nd.
154. *Chloris chloris* European Greenfinch – Heard at Embalse García de Sola and Tablas de Daimiel on the 22nd and again at Daimiel on June the 4th and at García de Sola on June the 5th, on Canal Vell on the 25th, 5+ at Vilacoto on June the 1st, at el Clot on June the 2nd, a few at Zafra de Zánacara on June the 4th.

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(*Carduelis citrinella* Citril Finch – According to David, the species is such a rare and irregular breeder in Catalonia these days that it is not worth looking for it.)

155. *Carduelis carduelis* European Goldfinch – Heard at Embalse García de Sola and Tablas de Daimiel on the 22nd and again near García de Sola on June the 5th, 2 at Vilacoto on June the 1st, a few at Zafra de Zánacara on June the 4th, a few at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.
156. *Carduelis cannabina* Common Linnet – Heard East of Santa Amália and near Embalse García de Sola on the 22nd, a few at Illa de Buda on the 25th, many at Zafra de Zánacara on June the 4th.

Emberizidae buntings

157. *Emberiza cirrus* Cirl Bunting – Heard singing near Embalse García de Sola around 2 PM on the 22nd.
158. *Emberiza schoeniclus* Reed Bunting (*E s witherbyi* of the *E s pyrrhuloides* group Thick-billed Reed Bunting) – 31+ males were sound recorded (17 at Illa de Buda, 14 at Vilacoto) and 30 playback experiments were performed. No census was conducted (using a boat is mandatory to make a good census at Buda) but a rough estimate can be provided: 25+ males at Buda and 30+ males (at a much higher density) at Vilacoto. Breeding was also much more advanced at Vilacoto, with several pairs feeding young while at Buda many males were still trying to obtain a social female. See also the comments under feral cat. One male at Illa de Buda had a metal ring on its left leg, suggesting it had been ringed by David Bigas (who always rings birds on their left legs). At Vilacoto a female with a metal ring on her right leg was recorded. A male was seen swallowing whole a huge food item (reminiscent of a small snail) at Illa de Buda on the 26th. The three main nuclei at Ebro Delta are in three different habitats: Illa de Buda birds nest in reedbed (*Phragmites australis*), Vilacoto birds in Great Fen-sedge (*Cladium mariscus*) and northwestern l'Encanyissada birds in Bulrush (*Typha latifolia*). Also there is grazing by cattle (bulls used in bullfighting) at l'Encanyissada but not at other areas and density of mammalian ground predators (mostly cats) varies immensely. In my view, all these factors make the area excellent for future ecological studies. 3+ nests found at Vilacoto.
159. *Emberiza calandra* Corn Bunting – Several at Tablas de Daimiel on May the 22nd and June the 4th, and at Zafra de Zánacara on June the 4th.

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Mammalia mammals

Insectivora

(*Atelerix algirus* Algerian hedgehog or *Erinaceus europaeus* Western hedgehog? A big individual was seen on the road near Canal Vell on the 30th around 5:30 AM. Due to the hour and to the rush to reach reed bunting ground, the ID problem was not obvious to me and therefore I didn't stop the car...).

Erinaceus europaeus Western hedgehog – One at the Animal Rescue Center (part of the Biological Station at Canal Vell) on May the 23rd.

Crocidura russula Greater white-toothed shrew – One dead at Calaix Gran dike (Illa de Buda) on May the 26th

Chiroptera bats

Rhinolophus ferrumequinum Greater horseshoe bat – According to the sign near the large batbox close to Mirador de l'Embut (at el Clot, Eastern l'Encanyissada), this is one of the species using the many boxes provided by the park. Those can be found in every hide, tower, station, etc. That may not sound very impressive to a Portuguese reader, used to no more than two or three hides in each Park, so I stress that at Ebro Delta 14 public hides exist. In addition, the Park has several hides just for use by researchers and Park personnel (e.g. three in Illa de Buda alone). In total, bats using boxes at the park are said to exceed 25,000. I was just able to pick out two morphotypes: large ones (probably serotines) and small ones (*Pipistrellus* spp). I don't think I came across any free-tailed bats because I can usually hear some of their calls. On June the 2nd (a clouded day) at el Clot late in the afternoon the first bat was seen at 9:27 PM.

Pipistrellus nathusii Nathusius' pipistrelle – See comment above, under Greater horseshoe bat.

Pipistrellus pipistrellus Common pipistrelle – See comment above, under Greater horseshoe bat.

Pipistrellus pygmaeus Pygmy or Soprano Pipistrelle – See comment above, under Greater horseshoe bat.

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Eptesicus serotinus Serotine – See comment above, under Greater horseshoe bat.

Tadarida teniotis European free-tailed bat – See comment above, under Greater horseshoe bat.

Lagomorpha

Lepus granatensis Iberian hare – 1+ at Tablas de Daimiel (Casa de los Pinillas) on June the 4th.

Oryctolagus cuniculus Rabbit – One near Canal Vell Biological Station on the 1st of June around 5:15 AM, a few at Zafra de Zánacara on June the 4th, 1+ at Tablas de Daimiel (near Casa de los Pinillas) on June the 4th.

Rodentia

Rattus norvegicus Brown rat or *Rattus rattus* Black rat, Ship rat – One crossing the road close to el Clot on the 1st of June around 5:30 AM. Also some roadkills at Ebro Delta. Tail, etc not seen in detail and both species occur in the area.

Mus domesticus Western house mouse - Several individuals (mostly albinos) held at the Animal Rescue Center in Canal Vell Biological Station and used for feeding carnivorous patients.

Carnivora

(*Vulpes vulpes* Red fox – Quite a few around, e.g. at Punta del Fangar, demanding a constant trapping effort from the park to avoid bigger damage to the seabird colonies. I didn't see any during my stay.)

Martes foina Beech marten, Stone marten – One near the road close to el Clot on the 1st of June around 5:30 AM.

Meles meles Badger – One adult which had been causing problems at the Audouin's gull colony of Punta de la Banya (killing a few adults, etc.) was captured and brought to the center on the 27th to be released in a few days on the mountains west of Amposta.

Lutra lutra Otter – Some faeces containing crawfish found on the edge of a ditch near Encanyissada probably belonged to this species.

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Felis catus feral cat – Many individuals (7+ seen!) at Illa de Buda, El Clot, Canal Vell, etc, are certainly an important threat to ground nesting birds, including the threatened Eastern Iberian Reed Buntings (*Emberiza schoeniclus witherbyi*). In areas where cats were at high density, all nests were in areas isolated by wide and deep ditches or channels. In Vilacoto, were only one cat was recorded (a sneaky Siamese on the southwestern dike), nests were everywhere (but of course the cutting leaves of *Cladium mariscus* do provide some extra security). A cat hunting ducklings was filmed at el Clot.

Artiodactyla

Sus scrofa Wild boar – A few rooted patches seen near Embalse García de Sola.

Capreolus capreolus Roe deer – 1 ad disturbed from cover (under holm oaks) at the plateau above Zafra de Záncara on June the 4th, white rear side rather conspicuous.

Cetacea Whales and Dolphins

Stenella coeruleoalba Striped Dolphin– One dead for quite some time at the beach of Cap de Tortosa (photo) on the 25th. Advanced decomposition made ID very difficult for the inexperienced, however the dolphin had been previously seen and ID by Toni Curcó, David Bigas, etc.

Amphibia amphibians

Bufo calamita Natterjack Toad – A few heard at Ebro Delta e.g. at Illa de Buda.

Hyla meridionalis Stripeless Tree Frog – Several heard at most of the freshwater palustrine habitats sampled.

Pelophylax perezi Iberian Frog – A few heard at several freshwater sites, inc some doing Baillon's Crake like calls at Canal Vell on the 27th.

Reptilia reptiles

Testudo hermanni Hermann's Tortoise – Often has two supracaudals but some individuals show only one, so ID best by lack of spurs on thighs. Has been introduced in Punta de la

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Banya and the area currently holds up to 250 pairs (Miguel Angel Franch com. pess.). I saw only 3+ inds (see photos) at the Animal Rescue Center (part of the Biological Station).

Testudo graeca Spur-thighed Tortoise – Only one small individual (see photos) at the Animal Rescue Center (part of the Biological Station).

Agrionemys (Testudo) horsfieldii Central Asian or Russian Tortoise – One rather large and orangey individual (see photos) at the Animal Rescue Center (part of the Biological Station). It is a popular pet and some individuals are abandoned turning up at animal rescue centers (Miguel Angel Franch com. pess.).

Emys orbicularis European Pond Terrapin – The Biological Station has large facilities dedicated to this species where tens of individuals are held and breed. The captive breed individuals have been used for successful reintroduction in the Park, where the species is threatened.

Trachemys scripta Red-eared slider – An exotic invasive species present at the park. Some individuals as held in a tank for public display at Riet Vell (see also comment under Louisiana crawfish below).

Caretta caretta Loggerhead Turtle – 1 dead for some time (completely dry) at Platja del Serrallo collected by David Bigas on the 29th (photos).

Tarentola mauritanica Moorish Gecko – One at Canal Vell Biological Station, climbing the wall of Casa Gran near the main gate on the 1st of June around 5:15 AM.

Psammodromus algirus Large Psammodromus – A few seen in areas with some trees and leaf litter, e.g. near Embalse García de Sola.

Acanthodactylus erythrurus Spiny-footed Lizard – A small lizard seen in the sand dunes of el Trabucador on June the 3rd was probably of this species.

Podarcis hispanica Iberian Wall Lizard – A few at l'Ametlla de Mar fishing harbor, Canal Vell Biological Station, etc.

Malpolon monspessulanus Montpellier Snake – One adult, about 1 m long, dead on the road between Poblenou del Delta and Sant Carles de la Ràpita near the sign for “Nicolau Construccions Navals” on the 31st, another roadkill between Deltebre and Canal Vell on the following day.

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Piscis fish

Silurus glanis Wels catfish – One, about 50 cm long, was caught by local fishermen in the ditch close to Mirador de l'Embut (at El Clot) and shown to me on June the 2nd.

Cyprinus carpio Common carp – One, about 60 cm long (and very heavy), was caught by local fishermen in the ditch close to Mirador de l'Embut (at El Clot) and shown to me on June the 2nd.

Invertebrates (notable ones!)

Pomacea insularum (or *P. canaliculata*??) Apple snail – invasive freshwater snail from South America that was introduced in the Delta and is now rather common. It used to be sold for home aquariums as an ornamental species at 20 € each. It can get pretty big and has a rather squid like head, including very long antennae, etc (see photos). Mostly dark brown but some yellow stripes can be seen in good light. Clutches of rather midwife toad like red eggs are placed on the surface of aquatic plant leaves, etc. Apparently they are sensitive to a fertilizer used on rice fields (that kills adults) and the park is doing experiments to confirm this and to find out if it could be used to control the species in the wild.

Procambarus clarkii Louisiana crawfish – Another invasive pest from America. I saw 4+ on the road near Canal Vell on the 30th around 5:30 AM and around 10:30 PM (a long day!). SEO also displays a few in a tank at Riet Vell (together with some Red-eared sliders) to make visitors aware of their status and of the damage they cause (to rice, amphibians, etc.).

Ixodes ricinus Castor Bean Tick – Two seen in Vilacoto in June. Fortunately a very small number.

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