

ZOOLOGICAL NEWS

NOTÍCIAS ZOOLÓGICAS

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Have you seen, heard or read something of zoological interest? Let us know!

Viu, leu ou ouviu algo com interesse zoológico recentemente? Informe-nos!

The transatlantic flight of turnstone MY6



Fig. 1. Turnstone *Arenaria interpres*, Santa Maria, Sal, Cape Verde Islands, 25 October 2013. © Ricardo van Dijk.

While observing waders at a pool near Santa Maria, Sal, 25 October 2013, Dutch birdwatchers Ellen de Bruin and Ricardo van Dijk discovered a turnstone *Arenaria interpres* wearing a metal ring as well as an engraved colour flag (Fig. 1). The flag could be easily read and subsequent

inquiry showed that the bird had been ringed and flagged at Reeds Beach, Delaware Bay, New Jersey, USA, on 20 May 2009. It was resighted in New Jersey each Spring during the years 2010-2013, the sighting in Cape Verde being the first in Autumn (Fig. 2). Turnstone is a Holarctic and circumpolar breeding bird, which winters along the coasts of Europe, Africa, southern Asia, Australia, southern North America and Central and South America. It essentially migrates south from the Arctic breeding grounds, but birds from Greenland and NE Canada are known to cross the Atlantic and winter in western Europe and NW Africa. It therefore seems likely that the bird at Santa Maria originated from breeding grounds in Greenland or NE Canada, demonstrating that turnstones seen in Cape Verde (where it is a common wintering migrant) do not necessarily stem from Eurasian breeding grounds.

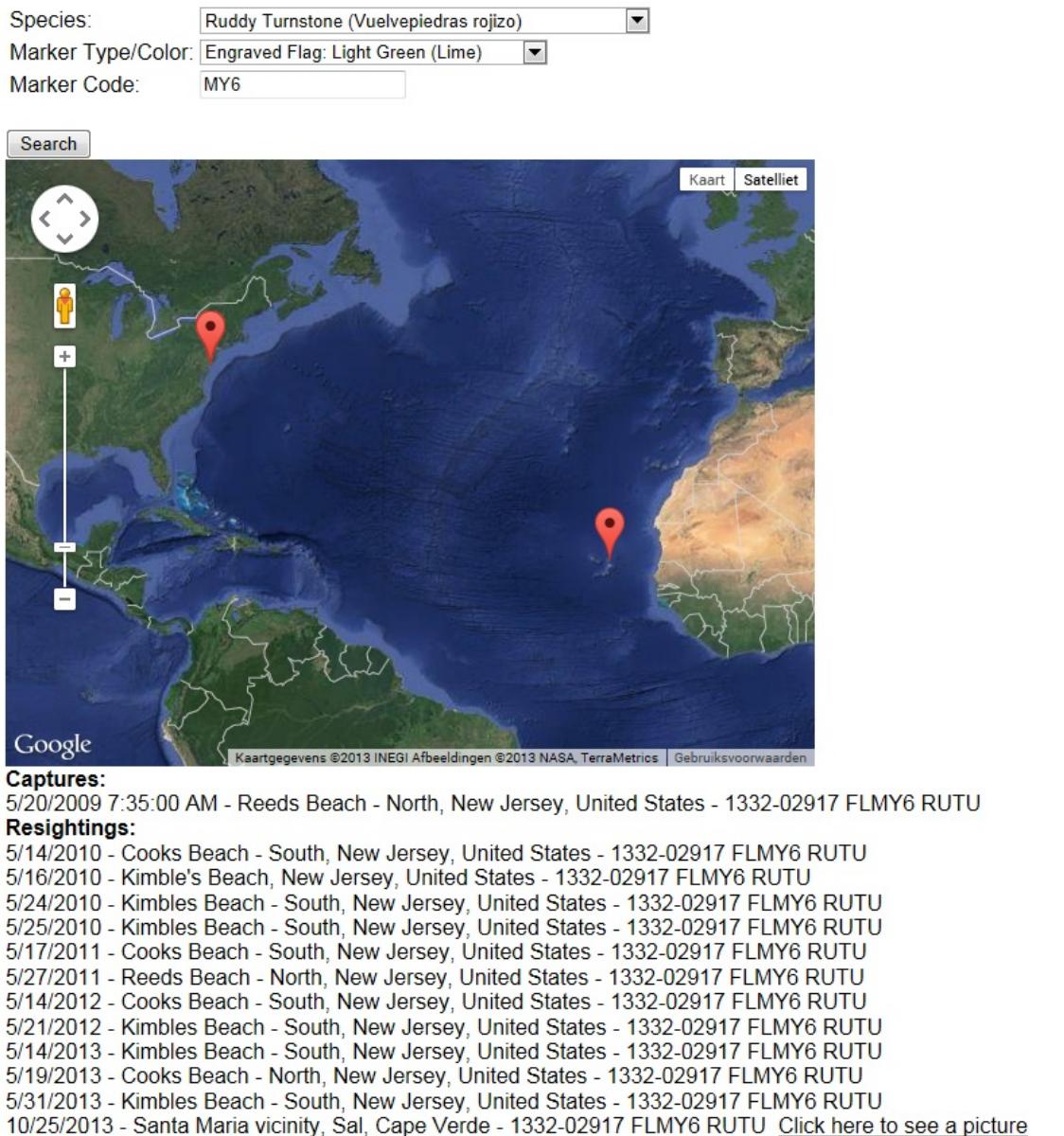


Fig. 2. Map showing ringing and resighting locations of turnstone *Arenaria interpres* MY6 in New Jersey and the Cape Verde Islands and list of resightings of the same bird during the years 2010-2013.

Source: <http://report.bandedbirds.org>

Killer whales off Sal in November 2013

On 23 November 2013, at 15:30 local time, a group of tourists were on a whale and dolphin excursion off southern Sal with [C-Riders](#) on their 10.5 m rigid inflatable rescue boat (RIB) *Quebramar*, when some unusual fins were seen in the distance. Skipper Alex Cieran manouevered the boat a little closer to get a better look. Along with guide Francisco Lopes, Alex confirmed that it was not a group of pilot whales *Globicephala macrorhynchus*, whch are commonly seen on these trips. The boat went within 25 m from the group of cetaceans and the size of the dorsal fin and the white marking near the eye confirmed that they were killer whales *Orcinus orca* (Fig. 1-2). Six individuals were identified, with five of them estimated to be *ca.* 6 m in length and the sixth to be smaller. At the time, there were also two groups of pilot whales (including calves) in the area. The killer whales were observed on the surface and diving for approximately 30 minutes at position 16°25,786'N, 22°54,514'W. Contributed by Jacquie Cozens, [ADTMA SOS Tartarugas Cabo Verde](#).

[SCVZ EDITOR'S NOTE: Killer whales are seldom reported from Cape Verde seas. Although perhaps more regular than the few reports suggest, there are only two confirmed recent observations, i.e. a pod of nine animals south of Santa Maria, Sal, 29 February 1996 (Hazevoet & Wenzel 2000, Contributions to Zoology 69: 197-211) and one off western Boa Vista, 21 September 2001 (Hazevoet *et al.* 2010, Zoologia Caboverdiana 1: 75-99).]



Fig. 1-2. Killer whales *Orcinus orca* off Sal, 23 November 2013. © Courtesy C-Riders.

The osprey breeding season on Boa Vista in 2013

From 28 December 2012 to 16 April 2013, [BIOS-CV](#) surveyed the osprey *Pandion haliaetus* population on Boa Vista. As in previous years, population size estimates were based on sightings of osprey pairs in nesting areas during the egg laying period (December-February). Single birds were not included in the estimate of population size. A total of 10 active nests were found during the survey, compared to 12 during the 2012 season. As monotoring started late, the reduction in the Boa Vista osprey population in 2013 must be interpreted with caution. Because of the high reproduction failure reported in 2012, we cannot rule out the possibility that some active nests had lost their brood before the survey started. For a second consecutive year, a polyandrous trio (two males and a single female) occupied one nest.

As in 2012, predation by the brown-necked raven *Corvus ruficollis* was the major cause of reproduction failure. At least six of the 10 active nests monitored this season lost their brood due to predation by brown-necked ravens. Humans were probably responsible for the failure of one nest, while the loss of another nest could be either due to predation by ravens, feral cats or humans.

No young ospreys successfully fledged from the 10 active nests in 2013. This is a serious cause of concern, taking into account the low productivity in 2012, the lack of breeding data in the period 2007-2012 and the low mean productivity in the period 2004-2007. Unless effective protection measures are implemented without delay, the extremely low breeding success of the Boa Vista osprey population during the past decade may jeopardize its long-term survival. This research was sponsored by [Cabeólica S.A.](#), wind energy producer in the Cape Verde Islands.

Tropicbirds at Ponta do Roque, Boa Vista, in 2013

In 2013, [BIOS-CV](#) monitored the population of red-billed tropicbird *Phaethon aethereus* at Ponta do Roque, Boa Vista. In 2012, this site was identified as the most important tropicbird rookery in Boa Vista. Since no signs of predation by feral cats or humans were found at Ponta do Roque, the peak of breeding activity in 2013 may have occurred early in the season (i.e. November-December), when no survey effort was made, and/or the number of breeding pairs was significantly lower than in 2012 (Table 1). Much of the ledges of the cliff, as well as the largest rocky cavities in which tropicbirds may nest, were covered with goat faeces. It is unclear if the occurrence of large numbers of goats in the area had been a cause of disturbance for tropicbirds, thus explaining the low number of breeding pairs reported during this season. Monitoring of tropicbirds should start in September and continue until late June in order to accurately estimate population size. This research was sponsored by [Cabeólica S.A.](#), wind energy producer in the Cape Verde Islands.

	December	January	February	March	April
2011-2012	63	52	27	10	?
2012-2013	?	18	16	7	6

Table 1. Number of occupied nests of red-billed tropicbird *Phaethon aethereus* at Ponta do Roque, Boa Vista, during the 2012 and 2013 surveys. ? = not visited.

New book on marine fauna of Cape Verde

[Espécies marinhas de Cabo Verde](#) aims to promote interest in Cape Verde's marine fauna among the general public. It presents colour illustrations (mostly photos, but drawings for whales and dolphins) of cetaceans, marine birds, marine turtles, sharks and rays, teleost fishes, echinoderms, crustacea, molluscs, cnidarians, ctenophores, bryozoans and algae occurring in Cape Verde seas. Vernacular names are given in six languages and for some groups length and weight are mentioned. SCVZ officers played a prominent role in the compilation of this work.

C. Fernández-Gil *et al.* 2013. *Espécies marinhas de Cabo Verde*. Biotecmar. 134 pp. ISBN 13: 978-84-695-8633-4

ZOOLOGICAL NEWS FROM THE NEWSPAPERS | NOTÍCIAS ZOOLÓGICAS DE JORNAIS

Ninhos de tartaruga verde localizados pela primeira vez em Cabo Verde

A ONG SOS Tartarugas acredita ter encontrado, na ilha do Sal, rastros e ninhos da tartaruga verde, uma espécie que se acreditava não existir no nosso país. Nos seus seis anos de actividade apenas rastros e ninhos da tartaruga *Caretta caretta* (tartaruga cabeçuda) foram localizados no arquipélago. Mas este ano rastros completamente diferentes apareceram na Costa Fragata e devem pertencer à Tartaruga Verde. Há seis anos que a SOS Tartarugas recolhe dados e informação sobre tartarugas desovantes em Cabo Verde, mas até à data apenas rastros de tartaruga-cabeçuda (*Caretta caretta*) têm sido vistos. No entanto, este ano foi localizada uma área do ninho muito maior do que o normal, o padrão e o tamanho do rastro levaram a equipa a crer que se trata de um ninho de tartaruga verde *Chelonia mydas*.

As tartarugas verdes são maiores do que as cabeçudas, bem como os seus ninhos e ovos. Segundo a ONG, o ninho corria risco de inundação, por estar muito perto da linha de maré alta, pelo que os ovos foram transportados para a incubadora. Esta situação também permitiu à SOS Tartarugas pesar e medir os ovos, que tem em média cerca de 47 mm, enquanto os da tartaruga cabeçuda possuem cerca de 41 mm. Também o número de ovos encontrado neste ninho (166) foi superior comparativamente ao número médio de ovos por ninho de tartaruga cabeçuda (80-120). “Este tem sido um ano extraordinário para as Tartarugas verdes, de acordo com alguns relatórios, e esta expansão aparente do seu habitat pode ser de grande interesse para os cientistas de todo o mundo, para além de consolidar a importância de Cabo Verde como sítio de desova”, diz Berta Renom, da SOS Tartarugas. O ninho deverá eclodir a 20 de Outubro.

[A Semana](#), 1 de Outubro de 2013

Nascem as primeiras tartaruguinhas-verdes no Sal

Já nasceram numa incubadora na ilha do Sal as primeiras tartaruguinhas-verdes. São ao todo 72 animais que brotaram de um único ninho, encontrado na praia de Costa Fragata, nos finais do mês passado. A libertação ao mar aconteceu no final da tarde desta quarta-feira.

Os primeiros nascimentos aconteceram no último domingo no viveiro da Praia de Ponta de Sinó, para onde foi transferido o ninho encontrado na praia de Costa Fragata com 166 ovos. Até este momento já nasceram 72 tartaruguinhas na ilha do Sal. Mas a SOS Tartarugas acredita que ainda possa haver alguma que não conseguiu sair à superfícies. As 72 tartaruguinhas foram todas libertadas para o mar. Inicialmente a SOS Tartarugas queria fazer a libertação-pública na praia de Santa Maria, perto do Pontão, mas não teve o aval da Direcção Geral do Ambiente, diz Berta Renon, uma das biólogas desta organização. O lançamento ao mar aconteceu em privado na Costa da Fragata.

Este não é o primeiro ninho de tartarugas-verdes encontrado no país. Na Boa Vista também foi descoberto um ninho desta espécie, durante este período de nidificação. Daí que a SOS Tartarugas, juntamente com a Turtle Foundation, tem feito recolhas de amostras que serão enviadas a um laboratório para ver se os dois ninhos pertencem a uma única tartaruga. “Pode ser que os dois ninhos sejam da mesma mãe, ou não. Temos agora de esperar os resultados laboratoriais para ver”, anuncia Berta Renon, explicando que esta espécie está em aparente

expansão de seu habitat e que pode ser de grande interesse para os cientistas de todo o mundo, para além de consolidar a importância de Cabo Verde como sítio de desova.

As tartarugas-verdes (*Chelonia mydas*) são maiores que as de tartarugas-cabeçudas (*Caretta caretta*), bem como os seus ninhos e ovos. Esta espécie tem bordas brancas nas barbatanas e a parte inferior do corpo é branca. As crias pesam aproximadamente 15g.

[A Semana](#), 18 de Outubro de 2013

Novo acordo de pescas em cima da mesa

O novo acordo de pescas que a União Europeia quer assinar com Cabo Verde vai ter a duração de seis anos, diz um relatório da Comissão Europeia publicado na semana passada em Bruxelas. Segundo os autores do documento, o novo acordo de pescas a ser assinado, será "mais satisfatório" graças à grande quantidade de peixe capturado em águas nacionais. O acordo actual foi assinado em 2011 e termina em Agosto do próximo ano e permite que 25 navios de pesca da União Europeia de pesca de atum e 35 embarcações de pesca à linha operem em Cabo Verde. Mas agora a União Europeia quer assinar um novo acordo de pescas com Cabo Verde. Um acordo mais duradouro e que permitirá aos navios pesqueiros europeus continuarem as suas operações de pescas em águas nacionais por mais seis anos. O início das negociações está marcado para breve.

[Expresso das Ilhas](#), 21 Novembro de 2013

Praga de gafanhotos ameaça agricultura na Boa Vista

Uma praga de gafanhotos está a dizimar hectares de culturas do Norte da ilha da Boa Vista. Os agricultores de João Galego têm-se desenrascado como podem, mas a delegação do Ministério do Desenvolvimento Rural (MDR) garante que está no terreno a combater a praga.

Tudo indicava que ia ser um bom ano agrícola, pois choveu em boa quantidade na Boa Vista. Mas há cerca de um mês que uma forte praga de gafanhotos começou a invadir as culturas no Norte, a veia agrícola da ilha. "Está a ser um problema porque os gafanhotos estão a comer de tudo. O MDR disse-nos que já não têm o remédio para matar os gafanhotos. E agora o agricultor que tiver um pouco de remédio vai colocando no auto-dinamizador para pulverizar os cultivos", diz o agricultor Danilo Cruz.

Entretanto, o MDR garante que está a lutar contra à praga de gafanhotos. O delegado, Osvaldo Viera, diz que os técnicos estão no terreno. "Neste momento temos técnicos no centro piloto em João Galego, as máquinas estão alocadas no terreno, temos produtos, damos indicações com assistência técnica e eles mesmos fazem os tratamentos", assegura, alertando os agricultores para que tenham muito cuidado na venda dos seus produtos, empestados de insecticidas. Para além deste combate, Osvaldo Vieira assegura que o MDR tem levado a cabo uma forte campanha para controlar a reprodução de gafanhotos e prevenir a proliferação para as áreas agrícolas. "A Boa Vista é a ilha que tem maior índice de ataques de gafanhotos desde a primeira invasão. A estratégia da campanha começa desde o litoral onde foi detectado maior desova de gafanhoto do deserto que se afectar a zona agrícola o prejuízo poderá ser ainda maior. Estivemos dois meses a trabalhar no local e foram gastos um milhão de contos em todo esse processo", afiança.

[A Semana](#), 22 Novembro de 2013

RECENT PAPERS ON CAPE VERDE ZOOLOGY AND PALEONTOLOGY |
ARTIGOS RECENTES SOBRE ZOOLOGIA E PALEONTOLOGIA
CABOVERDIANA

Levels of persistent organic pollutants in eastern North Atlantic humpback whales. Conor Ryan, Brendan McHugh, Brian Boyle, Evin McGovern, Martine Bérubé, Pedro López-Suárez, Cristiana T. Elfes, Daryle T. Boyd, Gina M. Ylitalo, Glenn R. Van Blaricom, Phillip J. Clapham, Jooke Robbins, Per J. Palsbøll, Ian O'Connor & Simon D. Berrow, **2013**. Endangered Species Research 22: 213-223. <http://dx.doi.org/10.3354/esr00545>

ABSTRACT Blubber lipid concentrations of 14 organochlorine compounds and 10 polychlorinated biphenyls (PCB) were measured by gas chromatography with electron-capture detection in eastern North Atlantic humpback whales *Megaptera novaeangliae* from Cape Verde ($n = 20$) and Ireland ($n = 4$). Concentrations were statistically compared to those from 20 samples collected from the Gulf of Maine in the western North Atlantic. Pollutant burdens were compared using males only, in order to circumvent biases associated with reproductive offloading. Lipid-normalised PCB concentrations were below the estimated threshold toxicity value of 17 000 ng g⁻¹ for blubber in marine mammals. Dichlorodiphenyltrichloroethane (DDT), PCB and chlordane concentrations were an order of magnitude lower than those previously reported for Gulf of Maine humpback whales and higher than those reported from the North Pacific Ocean. Higher concentrations of lower-chlorinated PCB congeners (28, 31 and 52), hexachlorocyclohexanes and hexachlorobenzene in males in eastern North Atlantic sites is consistent with higher latitude feeding grounds. Lower *p,p'*-DDE (dichlorodiphenyldichloroethane):ΣDDT ratios suggest that whales from the eastern North Atlantic harbour more recent inputs of DDT. The ΣDDTs:ΣPCBs ratio was higher for males from Cape Verde (1.69) and Ireland (1.44), indicating proportionately greater sources of agricultural rather than industrial sources of pollutants than for the Gulf of Maine whales (0.75). We demonstrate potential for persistent organochlorine pollutants (POPs) as tracers to determine foraging ground provenance for samples collected on breeding grounds in the North Atlantic. Low concentrations suggest that POPs are unlikely to be a factor in the poor recovery rate of humpback whales in Cape Verde.

Potential adverse effects of inorganic pollutants on clinical parameters of loggerhead sea turtles (*Caretta caretta*): Results from a nesting colony from Cape Verde, West Africa. M. Camacho, J. Orós, L.D. Boada, A. Zaccaroni, M. Silvi, C. Formigaro, P. López, M. Zumbado & O.P. Luzardo, **2013**. Marine Environmental Research 92: 15-22. <http://dx.doi.org/10.1016/j.marenvres.2013.08.002>

ABSTRACT A large number of nesting loggerhead sea turtles ($n = 201$) were sampled to establish the blood levels of 11 elements (Cu, Mn, Pb, Zn, Cd, Ni, Cr, As, Al, Hg, and Se). Almost all of the samples showed detectable levels of these 11 elements, and Zn and Se exhibited the highest concentrations (median values as high as 6.05 and 2.28 µg/g, respectively). The median concentrations of the most toxic compounds, As, Cd, Pb, and Hg, were relatively low (0.38, 0.24, 0.06, and 0.03 µg/g, respectively). We also determined the haematological and biochemical parameters in a subsample of 50 turtles to evaluate the potential effects of these contaminants on clinical parameters and found several associations.

Our study reinforces the usefulness of blood for the monitoring of the levels of contaminating elements and their adverse effects on blood parameters in sea turtles.

Interviews with fishers suggest European longlining threatens sea turtle populations in Cape Verdean waters. José Melo & Tommy Melo, **2013**. Marine Turtle Newsletter 138: 18-19.

[No abstract – Marine Turtle Newsletter 138 can be downloaded [here](#).]

Assessment of oil contamination in the bay of Porto Grande (Cape Verde) using the mullet *Chelon bispinosus*. N. Pinheiro, L. Barreira, B. Lopes & M.J. Bebiano, **2013**. African Journal of Environmental Science and Technology 7 (7): 657-670; <http://dx.doi.org/10.5897/AJEST2013.1432>

ABSTRACT Polycyclic aromatic hydrocarbons (PAHs) are a group of persistent organic pollutants, some of which are mutagenic and carcinogenic, so PAH concentrations in fish used for human consumption are crucial to assess impact on human health. Total PAH concentrations in muscle and liver of mullets *Chelon bispinosus* from the Bay of Porto Grande (Cape Verde) (four sites in the bay and a control) ranged from 112.7 to 779.5 and 291.5 to 7548.7 ng/g d. w., respectively. Two and three ring PAHs were the most frequent (72.8 to 90.8% in the muscle and 75.9 to 98.3% in the liver), but levels of carcinogenic PAHs (mainly Dibenzo (a,h) antracene) in certain sites (CN and PG) are of concern. Results reflect a chronic PAH pollution in the bay and sources are a mixture of anthropogenic (petrogenic and pyrolytic) and natural sources, making their identification extremely complex. Although, BaP levels were below the threshold established by Cape Verde and the European Union, BaPEs levels in muscle ranged from 0.28 to 3.66 ng/g w. w. and BAPEs and TPAHs exposure for the average adult was 0.02 to 0.26 and 1.6 to 11.2 µg/day, respectively. Further knowledge of PAH concentrations in other species is necessary for a proper environmental risk assessment policy.

The occurrence of *Sparisoma frondosum* (Teleostei: Labridae) in the Cape Verde Archipelago, with a summary of expatriated Brazilian endemic reef fishes. Rui Freitas, Osmar J. Luiz, Pericles N. Silva, Sergio R. Floeter, Giacomo Bernardi & Carlos E. L. Ferreira, **2013** (early online). Marine Biodiversity <http://dx.doi.org/10.1007/s12526-013-0194-z>

ABSTRACT The occurrence of the Brazilian endemic parrotfish *Sparisoma frondosum* is confirmed for the Cape Verde Archipelago, in the Tropical Eastern Atlantic. In total, 12 species of reef fishes previously thought to be either endemic or originated in the Brazilian Province have been recently recorded as vagrants in the southern Caribbean and in West African offshore islands. We suggest that the seasonal and somewhat overlooked North Equatorial Counter-current should receive more attention as a potential dispersal route for marine organisms crossing the Atlantic in a west-east direction.

A revision of *Artemia* biodiversity in Macaronesia. Francisco Hontoria, Stela Redón, Marta Maccari, Immaculada Varó, Juan Carlos Navarro, Luís Ballell & Francisco Amat, **2012**. Aquatic Biosystems 8 (25), 7 pp.; <http://dx.doi.org/10.1186/2046-9063-8-25>

ABSTRACT In a biogeographical context, the term Macaronesia broadly embraces the North Atlantic archipelagos of the Azores, Madeira, Selvagens, the Canary Islands, and Cape Verde. The peculiar arid climatic conditions in some of these places have led to the development of marine salt exploitations, which can be counted among the hypersaline habitats of the brine shrimp *Artemia* (Branchiopoda, Anostraca). Parthenogenetic populations of this anostracan were described in the Canary Islands during the last decades of the 20th century, while the American *Artemia franciscana* species was recently found in the Cape Verde archipelago. Following an invasive pattern, this exotic species has recently reached the Canary Islands, too. This paper reports information dealing with biotope loss (solar saltworks) in this biogeographical region, together with possible consequences concerning the arrival of invasive species, two factors that frequently promote dramatic biodiversity losses. The discussion of this threat focuses mainly on the Canary Islands archipelago where native species of *Artemia* still exist.

The apid cuckoo bees of the Cape Verde Islands (Hymenoptera, Apidae). Jakub Straka & Michael S. Engel, 2012. ZooKeys 218: 77-109; <http://dx.doi.org/10.3897/zookeys.218.3683>

ABSTRACT The apid cuckoo bees of the Cape Verde Islands (Republic of Cape Verde) are reviewed and five species recognized, representing two genera. The ammobatine genus *Chiasmognathus* Engel (Nomadinae: Ammobatini), a specialized lineage of cleptoparasites of nomioidine bees is recorded for the first time. *Chiasmognathus batelkai* sp. n. is distinguished from mainland African and Asian species. The genus *Thyreus* Panzer (Apinae: Melectini) is represented by four species – *Thyreus denolii* sp. n., *T. batelkai* sp. n., *T. schwarzi* sp. n., and *T. aistleitneri* sp. n. Previous records of *Thyreus scutellaris* (Fabricius) from the islands were based on misidentifications.

Faunistic notes on Arctiid moths of the Cape Verde Islands with description of a new species (Lepidoptera: Erebidae, Arctiinae). E. Aistleitner & K. Černý, 2013. Linzer biologische Beiträge 45 (1): 297-306.

ABSTRACT Notes on distribution and phenology of Arctiid moths from the Cape Verde-Islands are given. A new species is described as *Eilema aistleitneri* nov.sp. by K. Černý from ilha do Sal.

Flora und Vegetation des kaboverdianischen Archipels – ein kleiner Überblick. Eyjolf Aistleitner, 2013. Sauteria 20: 207-221.

ABSTRACT This article presents the flora and vegetation of Cape Verde. The introduction shows topography, geology and climate to understand the biotic situation. A brief consideration concerns the settlement through plant and animal organisms, together with two tables and original photos.

[SCVZ EDITOR'S NOTE: As the title implies, this paper primarily deals with the flora of Cape Verde, but there is also a section on fauna.]

Ichnology in oceanic islands; case studies from the Cape Verde Archipelago. E. Mayoral, J. Ledesma-Vazquez, B.G. Baarli, A. Santos, R. Ramalho, M. Cachão, C.M. da Silva & M.E. Johnson, **2013.** Palaeogeography, Palaeoclimatology, Palaeoecology 381-382: 47-66. <http://dx.doi.org/10.1016/j.palaeo.2013.04.014>

ABSTRACT Miocene and Pleistocene marine deposits in the Cape Verde Archipelago are represented by a series of thin, transgressive sandy-bioclastic limestones that typically occur between subaerial and/or submarine volcanic flows. This position within volcanic flows makes them an ideal paleobathymetric case study, because the submarine/subaerial passage zone above them provides a reliable and independent indicator of paleodepth. In terms of paleoichnology, the older Miocene sediments are characterized by the *Thalassinoides* ichnoassociation, whereas, Pleistocene sediments are characterized by the *Macaronichnus–Dactyloidites* ichnoassociation. The fair-weather suite of the proximal *Cruziana* ichnosubfacies is represented by the ichnotaxa *Dactyloidites*, *Bichordites*, *Cardioichnus*, *Phycodes*, *Teichichnus*, aff. *Taenidium*, *Palaeophycus* and *Thalassinoides* in addition to the *Thalassinoides* ichnoassociation. The *Macaronichnus–Dactyloidites* ichnoassociation is more complex, including representatives of both the proximal *Cruziana* and *Skolithos* ichnofacies. Only representatives of the *Skolithos* ichnofacies (*Skolithos*, *Macaronichnus*, *Conichnus* and *Ophiomorpha*) are represented in the post-storm suite. So far, bioerosive structures were found on the Miocene/Pleistocene unconformity surface of Maio Island and on basaltic paleocliffs at Ponta das Bicudas on Santiago Island. They are represented by the ichnoassemblage *Gastrochaenolites torpedo–Entobia* isp., corresponding to the *Entobia* ichnofacies. Bathymetric calibration deduced from the position of the following passage zone between submarine and sub-aerial lava flow allows for confirmation of the proximal *Cruziana* ichnosubfacies and *Skolithos* ichnofacies at a paleodepth between 12 and 18 m depth.