# Carlos Alonso-Alvarez

List of Publications by Year
in descending order



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|---|---|---|---|
| 83 papers | 5,085 citations | 101543 36 h-index | 91884 69 g-index |
| 88 all docs | 88 docs citations | 88 times ranked | 3748 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Oxidative stress as a lifeâ€history constraint: the role of reactive oxygen species in shaping phenotypes from conception to death. Functional Ecology, 2010, 24, 984-996. | 3.6 | 450 |
| 2 | Increased susceptibility to oxidative stress as a proximate cost of reproduction. Ecology Letters, 2004, 7, 363-368. | 6.4 | 357 |
| 3 | Testosterone and oxidative stress: the oxidation handicap hypothesis. Proceedings of the Royal Society B: Biological Sciences, 2007, 274, 819-825. | 2.6 | 295 |
| 4 | An Experimental Test of the Doseâ€Dependent Effect of Carotenoids and Immune Activation on Sexual Signals and Antioxidant Activity. American Naturalist, 2004, 164, 651-659. | 2.1 | 290 |
| 5 | Effects of experimental food restriction and body-mass changes on the avian T-cell-mediated immune response. Canadian Journal of Zoology, 2001, 79, 101-105. | 1.0 | 217 |
| 6 | Increased susceptibility to oxidative damage as a cost of accelerated somatic growth in zebra finches. Functional Ecology, 2007, 21, 873-879. | 3.6 | 195 |
| 7 | AN EXPERIMENTAL MANIPULATION OF LIFE-HISTORY TRAJECTORIES AND RESISTANCE TO OXIDATIVE STRESS. Evolution; International Journal of Organic Evolution, 2006, 60, 1913-1924. | 2.3 | 192 |
| 8 | The oxidation handicap hypothesis and the carotenoid allocation tradeâ€off. Journal of Evolutionary Biology, 2008, 21, 1789-1797. | 1.7 | 133 |
| 9 | An Intracellular Antioxidant Determines the Expression of a Melanin-Based Signal in a Bird. PLoS ONE, 2008, 3, e3335. | 2.5 | 131 |
| 10 | The expression of melanin-based plumage is separately modulated by exogenous oxidative stress and a melanocortin. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 3089-3097. | 2.6 | 121 |
| 11 | Ultraviolet reflectance affects male-male interactions in the blue tit (Parus caeruleus ultramarinus). Behavioral Ecology, 2004, 15, 805-809. | 2.2 | 120 |
| 12 | Carotenoids modulate the trade-off between egg production and resistance to oxidative stress in zebra finches. Oecologia, 2006, 147, 576-584. | 2.0 | 117 |
| 13 | Differential body condition regulation by males and females in response to experimental manipulations of brood size and parental effort in the blue-footed booby. Journal of Animal Ecology, 2003, 72, 846-856. | 2.8 | 105 |
| 14 | Benefits and costs of parental care. , 2012, , 40-61. | | 100 |
| 15 | A Biochemical Study of Fasting, Subfeeding, and Recovery Processes in Yellowâ€Legged Gulls. Physiological and Biochemical Zoology, 2001, 74, 703-713. | 1.5 | 99 |
| 16 | Manipulation of primary sex-ratio: an updated review. Avian Biology Research, 2006, 17, 1-20. | 1.3 | 95 |
| 17 | Avoiding bad genes: oxidatively damaged DNA in germ line and mate choice. BioEssays, 2008, 30, 1212-1219. | 2.5 | 85 |
| 18 | Cell-mediated immune activation rapidly decreases plasma carotenoids but does not affect oxidative stress in red-legged partridges (<i>Alectoris rufa</i>). Journal of Experimental Biology, 2008, 211, 2155-2161. | 1.7 | 83 |

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|---|---|---|---|
| 19 | Sublethal toxicity of the Prestige oil spill on yellow-legged gulls. Environment International, 2007, 33, 773-781. | 10.0 | 79 |
| 20 | Measuring Oxidative Stress: The Confounding Effect of Lipid Concentration in Measures of Lipid Peroxidation. Physiological and Biochemical Zoology, 2015, 88, 345-351. | 1.5 | 77 |
| 21 | Age and Breeding Effort as Sources of Individual Variability in Oxidative Stress Markers in a Bird Species. Physiological and Biochemical Zoology, 2010, 83, 110-118. | 1.5 | 75 |
| 22 | Effects of acute exposure to heavy fuel oil from the Prestige spill on a seabird. Aquatic Toxicology, 2007, 84, 103-110. | 4.0 | 73 |
| 23 | Free Radical Exposure Creates Paler Carotenoid-Based Ornaments: A Possible Interaction in the Expression of Black and Red Traits. PLoS ONE, 2011, 6, e19403. | 2.5 | 66 |
| 24 | The importance of visual cues for nocturnal species: eagle owls signal by badge brightness. Behavioral Ecology, 2007, 18, 143-147. | 2.2 | 64 |
| 25 | Variation in Reproductive Success Across Captive Populations: Methodological Differences, Potential Biases and Opportunities. Ethology, 2017, 123, 1-29. | 1.1 | 60 |
| 26 | Testosterone-mediated trade-offs in the old age: a new approach to the immunocompetence handicap and carotenoid-based sexual signalling. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 2093-2101. | 2.6 | 57 |
| 27 | An experimental manipulation of life-history trajectories and resistance to oxidative stress. Evolution; International Journal of Organic Evolution, 2006, 60, 1913-24. | 2.3 | 53 |
| 28 | The plasmatic index of body condition in Yellow-legged Gulls Larus cachinnans: a food-controlled experiment. Ibis, 2002, 144, 147-149. | 1.9 | 50 |
| 29 | Covariation in Oxidative Stress Markers in the Blood of Nestling and Adult Birds. Physiological and Biochemical Zoology, 2014, 87, 353-362. | 1.5 | 49 |
| 30 | Thrifty development: early-life diet restriction reduces oxidative damage during later growth. Functional Ecology, 2011, 25, 1144-1153. | 3.6 | 47 |
| 31 | Female body condition and brood sex ratio in Yellow-legged Gulls Larus cachinnans. Ibis, 2003, 145, 220-226. | 1.9 | 46 |
| 32 | Adjustment of female reproductive investment according to male carotenoid-based ornamentation in a gallinaceous bird. Behavioral Ecology and Sociobiology, 2012, 66, 731-742. | 1.4 | 45 |
| 33 | Carotenoid-based coloration predicts resistance to oxidative damage during immune challenge. Journal of Experimental Biology, 2010, 213, 1685-1690. | 1.7 | 44 |
| 34 | Owls and rabbits: predation against substandard individuals of an easy prey. Journal of Avian Biology, 2008, 39, 215-221. | 1.2 | 42 |
| 35 | Effects of experimental food restriction and body-mass changes on the avian T-cell-mediated immune response. Canadian Journal of Zoology, 2001, 79, 101-105. | 1.0 | 42 |
| 36 | Effects of testosterone implants on pair behaviour during incubation in the Yellow-legged Gull Larus cachinnans. Journal of Avian Biology, 2001, 32, 326-332. | 1.2 | 38 |

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|---|---|---|---|
| 37 | Energetic reserves, leptin and testosterone: a refinement of the immunocompetence handicap hypothesis. Biology Letters, 2007, 3, 271-274. | 2.3 | 37 |
| 38 | Identification of carotenoid pigments and their fatty acid esters in an avian integument combining HPLCâ€"DAD and LCâ€"MS analyses. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2011, 879, 341-348. | 2.3 | 37 |
| 39 | Age-dependent changes in plasma biochemistry of yellow-legged gulls (Larus cachinnans). Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2005, 140, 512-518. | 1.8 | 36 |
| 40 | The Level of an Intracellular Antioxidant during Development Determines the Adult Phenotype in a Bird Species: A Potential Organizer Role for Glutathione. American Naturalist, 2015, 185, 390-405. | 2.1 | 36 |
| 41 | Yolk testosterone reduces oxidative damages during postnatal development. Biology Letters, 2011, 7, 93-95. | 2.3 | 35 |
| 42 | Changes in Plasma Biochemistry and Body Mass During Incubation in the Yellow-legged Gull. Waterbirds, 2002, 25, 253. | 0.3 | 33 |
| 43 | The Oxidative Cost of Reproduction: Theoretical Questions and Alternative Mechanisms. BioScience, 2017, 67, 258-270. | 4.9 | 33 |
| 44 | Lowâ€quality birds do not display highâ€quality signals: The cysteineâ€pheomelanin mechanism of honesty. Evolution; International Journal of Organic Evolution, 2015, 69, 26-38. | 2.3 | 32 |
| 45 | Nest-dwelling ectoparasites reduce antioxidant defences in females and nestlings of a passerine: a field experiment. Oecologia, 2015, 179, 29-41. | 2.0 | 32 |
| 46 | Antioxidant Machinery Differs between Melanic and Light Nestlings of Two Polymorphic Raptors. PLoS ONE, 2010, 5, e13369. | 2.5 | 31 |
| 47 | Free and Esterified Carotenoids in Ornaments of an Avian Species: The Relationship to Color Expression and Sources of Variability. Physiological and Biochemical Zoology, 2013, 86, 483-498. | 1.5 | 30 |
| 48 | GENETIC CORRELATION BETWEEN RESISTANCE TO OXIDATIVE STRESS AND REPRODUCTIVE LIFE SPAN IN A BIRD SPECIES. Evolution; International Journal of Organic Evolution, 2010, 64, 852-857. | 2.3 | 29 |
| 49 | Specific carotenoid pigments in the diet and a bit of oxidative stress in the recipe for producing red carotenoid-based signals. PeerJ, 2016, 4, e2237. | 2.0 | 29 |
| 50 | The Importance of Visual Cues for Nocturnal Species: Eagle Owl Fledglings Signal with White Mouth Feathers. Ethology, 2007, 113, 934-943. | 1.1 | 27 |
| 51 | Families on the spot: sexual signals influence parentâ€"offspring interactions. Proceedings of the Royal Society B: Biological Sciences, 2009, 276, 2477-2483. | 2.6 | 27 |
| 52 | Mitochondria-targeted molecules determine the redness of the zebra finch bill. Biology Letters, 2017, 13, 20170455. | 2.3 | 25 |
| 53 | Yolk testosterone shapes the expression of a melanin-based signal in great tits: an antioxidant-mediated mechanism?. Journal of Experimental Biology, 2010, 213, 3127-3130. | 1.7 | 24 |
| 54 | Brightness variability in the white badge of the eagle owl Bubo bubo. Journal of Avian Biology, 2006, 37, 110-116. | 1.2 | 23 |

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| 55 | The oxidative cost of reproduction depends on early development oxidative stress and sex in a bird species. Proceedings of the Royal Society B: Biological Sciences, 2016, 283, 20160842. | 2.6 | 22 |
| 56 | Testing the sharedâ€pathway hypothesis in the carotenoidâ€based coloration of red crossbills. Evolution; International Journal of Organic Evolution, 2020, 74, 2348-2364. | 2.3 | 22 |
| 57 | Relationships between Hair Melanization, Glutathione Levels, and Senescence in Wild Boars. Physiological and Biochemical Zoology, 2012, 85, 332-347. | 1.5 | 21 |
| 58 | Effect of testosterone on the behaviour of Yellow-legged gulls (<i>Larus cachinnans</i>) in a high-density colony during the courtship period. Ethology Ecology and Evolution, 2001, 13, 341-349. | 1.4 | 19 |
| 59 | Adaptive downregulation of pheomelaninâ€related <i>Slc7a11</i> gene expression by environmentally induced oxidative stress. Molecular Ecology, 2017, 26, 849-858. | 3.9 | 19 |
| 60 | Sex-specific transgenerational effects of early developmental conditions in a passerine. Biological Journal of the Linnean Society, 0, 91, 469-474. | 1.6 | 18 |
| 61 | Accumulation of dietary carotenoids, retinoids and tocopherol in the internal tissues of a bird: a hypothesis for the cost of producing colored ornaments. Oecologia, 2015, 177, 259-271. | 2.0 | 18 |
| 62 | Plasma chemistry of the chinstrap penguin Pygoscelis antarctica during fasting periods: a case of poor adaptation to food deprivation?. Polar Biology, 2003, 26, 14-19. | 1.2 | 17 |
| 63 | Astaxanthin and papilioerythrinone in the skin of birds: a chromatic convergence of two metabolic routes with different precursors?. Die Naturwissenschaften, 2014, 101, 407-416. | 1.6 | 17 |
| 64 | Carotenoid-based coloration predicts both longevity and lifetime fecundity in male birds, but testosterone disrupts signal reliability. PLoS ONE, 2019, 14, e0221436. | 2.5 | 15 |
| 65 | Brightness variability in the white badge of the eagle owl<i>Bubo bubo</i>. Journal of Avian Biology, 2006, 37, 110-116. | 1.2 | 14 |
| 66 | Oxidative Stress Experienced during Early Development Influences the Offspring Phenotype. American Naturalist, 2020, 196, 704-716. | 2.1 | 14 |
| 67 | AN EXPERIMENTAL MANIPULATION OF LIFE-HISTORY TRAJECTORIES AND RESISTANCE TO OXIDATIVE STRESS. Evolution; International Journal of Organic Evolution, 2006, 60, 1913. | 2.3 | 13 |
| 68 | Individual quality as sensitivity to cysteine availability in a melanin-based honest signalling system. Journal of Experimental Biology, 2017, 220, 2825-2833. | 1.7 | 13 |
| 69 | Repeated Sampling but Not Sampling Hour Affects Plasma Carotenoid Levels. Physiological and Biochemical Zoology, 2007, 80, 250-254. | 1.5 | 12 |
| 70 | Testing the carotenoid-based sexual signalling mechanism by altering <i>CYP2J19</i> gene expression and colour in a bird species. Proceedings of the Royal Society B: Biological Sciences, 2020, 287, 20201067. | 2.6 | 12 |
| 71 | Variation in plasma biochemical parameters in captive adult red-legged partridges (Alectoris rufa) during daylight hours. European Journal of Wildlife Research, 2008, 54, 21-26. | 1.4 | 9 |
| 72 | The effects of testosterone manipulation on the body condition of captive male yellow-legged gulls. Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology, 2002, 131, 293-303. | 1.8 | 8 |

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|---|---|---|---|
| 73 | Black bib size is associated with feather content of pheomelanin in male house sparrows. Pigment Cell and Melanoma Research, 2014, 27, 1159-1161. | 3.3 | 7 |
| 74 | Buthionine sulfoximine diverts the melanogenesis pathway toward the production of more soluble and degradable pigments. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 2150-2154. | 2.2 | 7 |
| 75 | An ageâ€related decline in the expression of a red carotenoidâ€based ornament in wild birds. Evolution; International Journal of Organic Evolution, 2021, 75, 3142-3153. | 2.3 | 7 |
| 76 | Early development conditions and the oxidative cost of social context in adulthood: an experimental study in birds. Frontiers in Ecology and Evolution, 2015, 3, . | 2.2 | 6 |
| 77 | Dietary canthaxanthin reduces xanthophyll uptake and red coloration in adult red-legged partridges. Journal of Experimental Biology, 2018, 221, . | 1.7 | 6 |
| 78 | Life-long testosterone and antiandrogen treatments affect the survival and reproduction of captive male red-legged partridges (Alectoris rufa). Behavioral Ecology and Sociobiology, 2020, 74, 1. | 1.4 | 6 |
| 79 | Natural radioactivity can explain clinal variation in the expression of melanin-based traits. Evolutionary Ecology, 2011, 25, 1197-1203. | 1.2 | 5 |
| 80 | Contrasted effects of an oxidative challenge and Î±-melanocyte-stimulating hormone on cellular immune responsiveness: an experiment with red-legged partridges Alectoris rufa. Oecologia, 2012, 169, 385-394. | 2.0 | 4 |
| 81 | The fractal dimension of a conspicuous ornament varies with mating status and shows assortative mating in wild red-legged partridges (Alectoris rufa). Die Naturwissenschaften, 2018, 105, 45. | 1.6 | 3 |
| 82 | Time and habitat heterogeneity constrain the opportunity for sexual selection during mating. Ethology Ecology and Evolution, 2003, 15, 295-298. | 1.4 | 2 |
| 83 | Carbon Î´13C Isotopic Marker Values Correlate with Carotenoid-Based Bill Colouration in Adult Yellow-Legged Gulls Larus michahellis. Ardeola, 2020, 67, 325. | 0.7 | 0 |