

## CURRICULUM VITAE

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**Carlos Martínez del Rio**

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Born: 6 April 1956.

Marital status: married.

Current position: professor.

### Education:

B.Sc. Universidad Nacional Autonoma de México (1984).

Ph.D. University of Florida (1990).

### Academic experience

1990-1994 Assistant professor; Department of Ecology and Evolutionary Biology,  
Princeton University.

1995-1997 Assistant professor; Department of Zoology and Physiology,  
University of Wyoming.

1998-2000 Associate professor, Department of Ecology and Evolutionary Biology,  
University of Arizona.

2000-2005 Associate professor; Department of Zoology and Physiology,  
University of Wyoming.

2005- Professor, Department of Zoology and Physiology,  
University of Wyoming.

Society membership: American Ornithologists Union, American Physiological Society,  
Comparative Nutrition Society, Cooper Ornithological Society, Ecological Society of  
America, Society for Integrative and Comparative Biology, Wilson Ornithological  
Society, Sigma Xi.

Reviewer for: American Journal of Physiology, American Journal of Botany, The Auk ,  
The American Naturalist, Annals of Applied Biology, Archives of Insect Biochemistry  
and Physiology, Benjamin Cummins Eds., Biotropica , Boletín de la Sociedad Chilena de  
Historia Natural, Biotropica, Canadian Journal of Zoology , The Condor, Comparative  
Biochemistry and Physiology , Conservation Biology, Ecological Applications, Ecology,  
Folia Primatologica, Functional Ecology, Ibis, Physiological and Biochemical Zoology,  
Oxford University Press, Trends in Ecology and Evolution, The National Science  
Foundation, The Willson Bulletin, Journal of Comparative Physiology, Journal of Avian  
Biology, Journal of Field Ornithology, Journal of Raptor Research, Journal of Tropical

Ecology, National Geographic Society, University of Chicago Press, USDA/APHIS, Science, PLOS Biology, PNAS.

#### International Teaching:

- 1996-1999 Curso de Ornitología Tropical, Instituto de Ecología, Jalapa, México.  
1995- Fisiología Ecologica de las Interacciones Animal Planta, Coordinador (Sociedad Latinoamericana de Botánica), Universidad de Chile, Santiago.  
1992-1993 Curso de Ecología Tropical y Biología de la Conservación (FES, WWF, WCI), Reserva Natural "La Planada", Colombia.

#### Awards, fellowships and grants

- Previous NSF dissertation improvement grant BSR-8701048 (1987-1989).  
USDA/APHIS 1988 best publication award, "Martínez del Rio et al. Physiological correlates of preference and aversion for sugars in three species of birds. Physiological Zoology 61: 222-229".  
NSF grant BSR-8901068 ("Bird digestive physiology: a comparative and integrative approach", 1991-1993).  
National Geographic Grant 4866-92 (1993-1994, "Ecology of Tristerix aphyllus, a Chilean endoparasitic mistletoe of cacti).  
Freund Visiting Scholar (October 1995), International Center of Tropical Ecology, University of Missouri.  
NSF Young Investigator Award, IBN-9258505 (1992-1997)  
Electrical Power Research Institute (RP8020-10, 1996-1998),  
"Mechanisms of toxicity in fish caused by dietary exposure to metals"  
Wyoming Department of Game and Fish (1997-2000, Modeling body condition: the role of nutrition, exercise, and water temperature in winter trout fisheries")  
Turner Endangered Species Fund, Migrant Pollinators (Co-PI with Drs. W. Calder, T. Fleming, and G. Nabhan, April 1999-April 2002)  
BNSF (Israel-USA), Integration of osmoregulatory, digestive, and metabolic function in nectarivorous birds (with Dr. B. Pinshow as Co-PI, May 1999-May 2002).  
NSF, Coping with a watery sugary diet: Integration of osmoregulation, digestion, and energy balance in nectar and fruit-eating birds (August 2001-August 2004).

#### Current

- Elective Member of the American Ornithologist's Union  
NSF, Using stable isotopes to understand trophic relationships:  
Experimental tests of mass-balance models (August 2004-August 2007)  
Aldo Leopold Leadership Fellow (2004-)  
Tracking resource use and migration of white-winged doves (Arizona Game and Fish, Texas Parks and Recreation, 2006- )

### Invited Seminars (last 2 years)

Department of Biology, University of Washington (November 2005). Isotopic Ecology, Belfast, UK (plenary speaker, August 2006). Comparative Physiology: Integrating Diversity, Virginia Beach (plenary speaker, October 2006), The Metabolic Basis of Biology, American Association for the Advancement of Science San Francisco (devil's advocate/speaker, February 2007), University of Oklahoma (Distinguished Ecologist Series, April 2007), VI Congreso de Ornitología Neotropical, Maturín, Venezuela (plenary speaker, May 2007), V Australasian Ornithological Congress (Opening Plenary Speaker, Dec. 2007)

### Service

Associate Editor for Ecology and Ecological Monographs (Ecological Society of America, 1998-2007).  
Associate Editor for Oecologia (2004- )  
Member of the Scientific Advisory Board of the Southwestern Research Station, American Museum of Natural History (1998-2003).  
Member of the Board of Directors of The Wildlands Project (1998-2001).  
Research Associate at the Arizona-Sonora Desert Museum (1999- ).  
Proposal Evaluation Committee Member (Fondo Nacional de Ciencia y Tecnología, Argentina, 2001- ).  
Member of the National Center for Ecological Analysis and Synthesis "comparative study of adaptive radiation" working group (2001-2003).  
National Science Foundation Panelist (Ecological and Evolutionary Physiology, 2002- ).  
Member of the Scientific and Technical Advisory Panel of the Division of Global Environment Facility Coordination, United Nations Environment Programme (2003- ).  
National Science Foundation, Division of Emerging Frontiers, Biological Sciences, Committee of Visitors (2006).  
National Research Council/National Academy of Sciences, Defining and Advancing the Conceptual Basis of Biology Committee (2006-2007).

### Publications (divided in three sections Physiological Ecology, Ecology, and Natural History and Conservation Biology)

#### Physiological Ecology

-Tsahar, E., N. Wolf, I. Ishaki, Z. Arad, and C. Martínez del Rio. 2007. Diet influences the rate of 15N incorporation in blood cells and plasma of yellow-vented bulbuls (*Pycnonotus xanthopygos*). Journal of Experimental Biology 211: 459-465.

- Reich, K. J. , K. A. Bjorndal, and C. Martínez del Rio. 2007. Effects of growth and tissue type on the kinetics of  $^{13}\text{C}$  and  $^{15}\text{N}$  incorporation in a rapidly growing ectotherm. *Oecologia* (in press).
- Perez, G. E., J. E. Schondube, and C. Martínez del Rio. 2007. Isótopos estables en ornitología: una introducción breve. *Revista de Ornitología Neotropical* (in press).
- Tibbets, T., L. A. Wheeler, and C. Martínez del Rio. 2007. Isotopic enrichment without change in diet: an ontogenetic shift in  $\delta^{15}\text{N}$  during insect metamorphosis. *Functional Ecology* 22: 000-000 doi:10.1111/j.1135-2435.01342.x
- Rodríguez-Peña, N, K. E. Stoner, J. E. Schondube, J. Ayala, C. M. Florez-Ortiz, and Carlos Martínez del Rio. 2007. Effects of sugar composition and concentration on food selection by Saussure's long-nosed bat (*Leptonycteris curasoae*) and the long-tongued bat (*Glossophaga soricina*). *Journal of mammalogy* 88: 000-000
- Ayala, J., J. E. Schondube, N.K. Rodríguez-Peña, K. E. Stoner, and C. Martínez del Rio. The intake responses of three species of leaf-nosed Neotropical bats. *Journal of Comparative Physiology B* (in press).
- Martínez del Rio, C. 2007. Comparing modes of inquiry. *Nature* 450: 171.
- Karasov, W. H. and C. Martínez del Rio. 2007. *Physiological ecology: How animals process energy, nutrients, and toxins*. Book for Princeton University Press, Princeton, NJ. 724 p
- Welch, K. C., B. Hartmann Bakken, C. Martínez del Rio, and R. K. Suarez. 2006. Hummingbird fuel hovering flight with newly-ingested sugar. *Physiological and Biochemical Zoology* 79: 1082-1087
- Sabat, P., K. Maldonado, M. Canals, and C. Martínez del Rio. 2006. Osmoregulation and adaptive radiation in the ovenbird genus *Cinclodes* (Passeriformes: Furnariidae). *Functional Ecology* 20: 799-805.
- Carleton, S., B. H. Bakken, and C. Martínez del Rio. 2006. Do hummingbirds fuel energy metabolism with reserves or income? *Journal of Experimental Biology* 209: 2622-2627.
- Tsahar, E., Z. Arad., I. Izhaki, and C. Martínez del Rio. 2006. Do nectar- and fruit-eating birds have lower nitrogen requirements? An allometric test. *The Auk* 123: 1004-1012.
- Sabat, P., K. Maldonado, and C. Martínez del Rio. 2006. Osmoregulatory capacity and the ability to use marine food sources in two coastal songbirds (*Cinclodes*: Furnariidae) along a latitudinal gradient. *Oecologia* 148: 250-257.

- McWhorter, T., B. H. Bakken, W. H. Karasov, and C. Martínez del Rio. 2006. Hummingbirds rely on passive intestinal glucose absorption to fuel high metabolism. *Biology Letters* 2: 131-134.
- Tsahar, E., C. Martínez del Rio, I. Izhaki, and Z. Arad. 2005. Can birds be ammonotelic? Nitrogen balance and excretion in two frugivores *Journal of Experimental Biology* 208: 1025-1034.
- Carleton, S. A., C. Martínez del Rio. 2005. The effect of cold-induced increased metabolic rate on the rate of  $^{13}\text{C}$  and  $^{15}\text{N}$  incorporation in house sparrows (*Passer domesticus*). *Oecologia* 144: 226-232.
- Tsahar, E., C. Martínez del Rio, Z. Arad, J. Joy, and I. Izhaki. 2005. Are the low protein requirements of nectarivorous birds the consequence of their sugary and watery diet? – a test with an omnivore. *Physiological and Biochemical Zoology* 78: 239-245.
- Simpkins, D. G., W. A. Hubert, C. Martinez del Rio, and D. C. Rule. 2004. Factors affecting swimming performance of fasted rainbow trout with implications of exhaustive exercise on overwinter mortality. *J. Freshwater Ecol.* 19: 657-666.
- Simpkins, D. G., W. A. Hubert, C. Martinez del Rio, and D. C. Rule. 2004. Constraints of body size and swimming velocity on the ability of juvenile rainbow trout to endure periods without food. *J. Fish. Biol.* 65: 530-544.
- Hartman Bakken, B., McWhorter, T.J., Tsahar, E. and Martínez del Rio, C. 2004. Hummingbirds arrest their kidneys at night: diel variation in glomerular filtration rate in *Selasphorus platycercus*. *J. Exp. Biol.* 207 : 4383-4391.
- Carleton, S., B. O. Wolf, and C. Martínez del Rio. 2004. Keeling plots for hummingbirds: measuring  $\delta^{13}\text{C}$  in the exhaled  $\text{CO}_2$  of small animals. *Oecologia* 144: 141: 1-6.
- McWhorter, T., C. Martínez del Rio, B. Pinshow, and L. Roxburgh. 2004. Renal function in Palestine sunbirds. Elimination of excess water does not constrain energy intake. *J. Exp. Biol* 207: 3391-3398.
- McKechnie, A. E., B. O. Wolf, and C. Martínez del Rio. 2004. Deuterium stable isotopes ratios as tracers of water resource use: an experiment with rock doves. *Oecologia* 140: 191-200.
- Schondube, J. and C. Martínez del Rio. 2004. Sugar and protein digestion in flowerpiercers and hummingbirds: a comparative test of adaptive convergence. *Journal of Comparative Physiology B.* 174: 263-273.

- Lotz, C. , C, Martínez del Rio, and S. W. Nicolson. 2004. The ability of rufous hummingbirds (*Selasphorus rufus*) to dilute and concentrate excreta. *Journal of Avian Biology* 35: 54-62.
- Lotz, C. and C, Martínez del Rio. 2003. Hummingbirds pay a high cost for a warm drink. *J. Comp. Phys. B* 173: 455-462.
- McWhorter, T., D. Powers, and C. Martínez del Rio. 2003. Ammonotelic, nitrogen excretion and nitrogen requirements in three sympatric hummingbird species. *Physiological and Biochemical Zoology* 76: 731-743.
- Simpkins, D. G., W. A. Hubert, C. Martinez del Rio, and D.C. Rule. 2003. Interacting effects of water temperature and swimming activity on body composition and mortality of fasted juvenile rainbow trout. *Canadian Journal of Zoology* 81:1641-1649.
- Simpkins, D., W. A. Hubert, C. Martínez del Rio, and D. C. Rule. 2003. Physiological responses of juvenile trout to fasting and swimming activity: effects on body composition and condition indices. *Transactions of the American Fisheries Society* 132: 587-591.
- Simpkins, D.G., W.A. Hubert, C. Martínez del Rio, and D.C. Rule. 2003. Effects of swimming activity on relative weight and body composition of juvenile rainbow trout. *North American Journal of Fisheries Management* 23:283-289.
- Pearson, S. F., D. J. Levey, C. H. Greenberg, and C. Martínez del Rio. 2003. Effects of elemental composition on the incorporation of dietary nitrogen and carbon and isotopic signatures in an omnivorous songbird. *Oecologia* 135:516–523.
- Martínez del Rio, C. and B. O. Wolf. 2003. Mass balance models for animal isotopic ecology. In Starck, M. A. and T. Wang (eds.). *Physiological consequences of feeding*. Science Publishers, Berlin.
- McWhorter, T., C. Martínez del Rio, and B. Pinshow. 2003 Adaptive regulation of water absorption by Palestine sunbirds: Adaptive regulation or a function of sugar absorption? *Journal of Experimental Biology* 206: 659-666.
- Sabat, P. and C. Martínez del Rio. 2002. Inter- and intraspecific variation in the use of marine food resources by three *Cinclodes* (Furnariidae, Aves) species: Carbon isotopes and osmoregulatory physiology *Zoology* 105: 247-256.
- Wolf, B. O., J. Babson, and C. Martínez del Rio. 2002. Saguaro, doves, and isotopes: differential water and carbon acquisition by animals feeding on a single resource. *Ecology* 83(3): 1286-1293.

- Levey, D. J. and C. Martínez del Rio. 2001. It takes guts (and more...) to eat fruit: Lessons from avian nutritional ecology. *The Auk* 118: 819-830.
- Witmer, M. C. and C. Martínez del Rio. 2001. The intestinal enzymes of cedar waxwings and thrushes. *Physiological and Biochemical Zoology* 74: 584-593.
- Martínez del Rio, C., J. E. Schondube, and T. McWhorter. 2001. Intake responses in nectar-feeding birds: digestive and metabolic causes, osmoregulatory consequences, and coevolutionary effects. *American Zoologist* 41: 902-915.
- Schondube, J., C. Martínez del Rio, and L.G. Herrera. 2001. Diet and the evolution of digestion and renal function in phyllostomid bats. *Zoology* 104: 59-74.
- Herrera, L. G., C. Martínez del Rio, E. Braun and K. Hobson. 2001. Renal structure in phyllostomid bats: using stable isotopes to explore relationships between diet and morphology. *Isotopes in Environment and Health Science* 37: 1-11.
- Wolf, B. O. and C. Martínez del Rio. 2000. Use of saguaro fruit by White-winged doves: isotopic evidence of a tight ecological association. *Oecologia* 124: 536-543.
- McWhorter, T. and C. Martínez del Rio. 2000. Does gut function limit hummingbird food intake? *Physiological and Biochemical Zoology* 73: 313-324.
- O'Brien, D., D. Schrag, and C. Martínez del Rio. 2000. Allocation of nectar nutrients to reproduction in *Amphion floridensis*: a novel quantitative method using stable isotopes. *Ecology* 81: 2822-2831.
- Caviedes-Vidal, E., D. Afik, C. Martínez del Rio, and W. H. Karasov. 2000. Dietary modulation of intestinal enzymes of the house sparrow (*Passer domesticus*): testing and adaptive hypothesis. *Comparative Biochemistry and Physiology* 125A: 11-24.
- Levey, D. J. and C. Martínez del Rio. 1999. Tests, rejection, and reformulation of a guts as reactors optimal digestion model in a frugivorous bird. *Physiological Zoology* 72: 369-383.
- Novinger, D. C. and C. Martínez del Rio. 1999. Failure of total body electric conductivity to predict lipid content of brook trout. *North Am. J. of Fish. Manage.* 19: 942-947.
- Levey, D. J., A. R. Place, P. J. Rey, and C. Martínez del Rio. 1999. An experimental test of dietary enzyme modulation in pine warblers (*Dendroica pinus*). *Physiological Zoology* 72: 576-587.
- Jumars, P. and C. Martínez del Rio. 1999 The tau of continuous feeding on simple foods. *Physiological Zoology* 72: 633-641.

- McWhorter, T.J. and Martínez del Rio, C. 1999. Food ingestion and water turnover in hummingbirds: How much dietary water is absorbed? *The Journal of Experimental Biology* 202: 2851-2858.
- Streumpf, H. M., and C. Martínez del Rio. 1999. Amygdalin, a cyanogenic glycoside in ripe fruit does not deter consumption by cedar waxwings. *The Auk* 116: 749-758.
- Herrera, G. and C. Martínez del Rio. 1998. Pollen digestion by New World bats. Effects of processing time and feeding habits. *Ecology* 79: 2828-2838.
- Sabat, P., F. Novoa, F. Bozinovic, and C. Martínez del Rio. 1998. Dietary plasticity and intestinal lability in birds: a field and laboratory study. *Physiological Zoology* 71: 226-236.
- Gannes, L. Z., C. Martínez del Rio, and P. Koch. 1998. Natural abundance variation in stable isotopes and their uses in animal physiological ecology. *Comparative Biochemistry and Physiology* 119A:725-737.
- Martínez del Rio, C., M. Avery, and K. L. Brugger. 1997. Sucrose as a feeding deterrent for fruit-eating birds. Pages 353--370 in J. R. Mason (ed.) *Repellents in Wildlife Management: Proceedings of a Symposium*, National Wildlife Research Center, Fort Collins, Colorado.
- Wagner, D. and C. Martínez del Rio. 1997. Experimental tests of the mechanism for ant-enhanced growth in an ant-tended lycaenid butterfly. *Ecology* 78: 424-429.
- López-Calleja, M. V., F. Bozinovic, and C. Martínez del Rio. 1997. Effects of sugar concentration on hummingbird feeding and energy use. *Comparative Biochemistry and Physiology* 119A: 1-9.
- Martínez del Rio, C. 1997. Avian energetics and nutritional ecology (bookreview). *The Condor* 99: 101-1012.
- Martínez del Rio, C. 1997. Can Passerine Birds Synthesize Vitamin C? *The Auk* 114: 513-515.
- Gannes, L. Z., D. O'Brien, and C. Martínez del Rio. 1997. Stable isotopes in animal ecology: assumptions, caveats, and a call for laboratory experiments. *Ecology* 78:1271-1276.

-Martínez del Rio, C. and S. Cork. 1996. Exploring nutritional biodiversity: A society is born. *Trends in Ecology and Evolution* 12: 9-10.

-Martínez del Rio, C., K. Brugger, M. Witmer, J. Rios, and E. Vergara. 1995. An experimental and comparative study of dietary modulation of intestinal enzymes in European starlings (*Sturnus vulgaris*). *Physiological Zoology* 68: 490-511.

-Afik, D., E. Caviades, C. Martínez del Rio and W. H. Karasov. 1995. Dietary modulation of intestinal hydrolytic enzymes in yellow-rumped warblers. *American Journal of Physiology* 269: R413-R420.

-Malcarney, H., C. Martínez del Rio and V. Apanius. 1994. Sucrose intolerance in birds: simple non-lethal diagnostic methods and consequences for the assimilation of complex carbohydrates. *The Auk* 111: 170-177.

-Martínez del Rio, C. 1994. Nutritional ecology in nectar- and fruit-eating volant vertebrates. Pages 103-127 in Chivers, D. and P. Langer (eds.) *Food and form and function of the mammalian digestive tract*. Cambridge University Press.

-Martínez del Rio, C., S. Cork, and W. H. Karasov. 1994. Engineering and digestion: modeling gut function. Pages 25-53 in Chivers, D. and P. Langer (eds.) *Food and form and function of the mammalian digestive tract*. Cambridge University Press.

-Biviano, A. B., C. Martínez del Rio, and D. L. Phillips. 1993. Ontogeny of sucrase and maltase in chickens fed contrasting purified diets. *Journal of Comparative Physiology* 163: 508-510.

-Martínez del Rio C. and C. Restrepo. 1993. Ecological and behavioral consequences of digestion in frugivorous animals. *Vegetatio* 107/108: 205-216.

-Martínez del Rio, C. 1993. Do British tits drink milk or just skim the cream? *British Birds* 86: 321-322.

-Hernandez, A., and C. Martínez del Rio. 1992. Intestinal disaccharidases of five species of phyllostomid bats with contrasting feeding habits. *Comparative Biochemistry and Physiology* 103B: 105-111.

-Martínez del Rio, C., H. G. Baker and I. Baker . 1992. Ecological and evolutionary implications of digestive processes: bird preferences and the sugar constituents of floral nectar and fruit pulp. *Experientia* 48: 544-550.

-Martínez del Rio, C. 1990. Sugar preferences in hummingbirds: the influence of subtle chemical differences on food choice. *The Condor* 92: 1022-1030.

-Martínez del Rio, C. 1990. Dietary and phylogenetic correlates of intestinal sucrase and maltase activity in birds. *Physiological Zoology* 63: 987- 1011.

-Martínez del Rio, C. and W. H. Karasov. 1990. Digestion strategies in fruit and nectar eating birds and the sugar composition of plant rewards. *The American Naturalist* 136: 618-637.

-Martínez del Rio, C. W. H. Karasov and D. J. Levey. 1989. Physiological basis and ecological correlates of sugar preferences in a North American frugivore, the Cedar Waxwing. *The Auk* 106: 64-71.

-Martínez del Rio, C. and B. R., Stevens. 1989. Physiological on feeding behavior: the intestinal brush border membrane disaccharidases of the European Starling. *Science* 243: 794-796.

-Martínez del Rio, C., B. R. Stevens, D. E. Daneke and P. T. Andreadis. 1988. Physiological correlates of preference and aversion for sugars in three species of birds. *Physiological Zoology* 61: 222-229.

Martínez del Rio, C. and B. R. Stevens. 1988. Disaccharidases of Alligator (*Alligator mississippiensis*). *Comparative Biochemistry and Physiology* 91B: 751-754.

## Ecology without adjectives

-Martínez del Rio, C., P. A. Stephens, and S. W. Buskirk. 2007. Null-significance significance tests- education and inference. *Trends in Ecology and Evolution* DOI (in press).

-Newsome, S., C. Martínez del Rio, D. L. Phillips, and S. Bearhop. 2007. A niche for isotopic ecology. *Frontiers in Ecology and the Environment* 5: 429-436.

-Stephens, P.A., Buskirk, S.W. & Martínez del Rio, C. (2007) Inference in ecology and evolution. *Trends in Ecology and Evolution* 22: 192-197.

-Stephens, P. A., S. W. Buskirk, and C. Martínez del Rio. 2007. A call for statistical pluralism answered. *J. Appl. Ecol.* 44: 461-463.

-Martínez del Rio, C. 2006. Plant-pollinator interactions: from specialization to generalization. *Condor* 108: 986-993.

- Martínez del Rio, C. 2006. Plant pollinator interactions: from specialization to generalization. *Condor* 108: 986-993.
- Gillooly, J. F., A. P. Allen, J. H. Brown, J. J. Elser, C. Martínez del Rio, V. M. Savage, G. B. West, W. H. Woodruff, and H. A. Woods. 2005. The metabolic basis of whole-organism RNA and phosphorus content. *Proc. Natl. Acad. Sci.* 102: 11923-11927.
- Martínez del Rio, C. and B. Wolf. 2005. Mass-balance models for animal isotopic ecology. Pp. 141-174 in Starck, J. M. and T. Wang. *Physiological and ecological adaptations to feeding in vertebrates*. Science Publishers, Enfield, NH.
- Stephens, P., S. Buskirk, G. Hayward, and C. Martínez del Rio. 2005. Information theory and hypothesis testing: a call for pluralism. *J. Applied Ecology* 42: 4-12
- Martínez del Rio, C. 2003. Ecological stoichiometry's proclamation (book review). *Ecology* 84: 2226-2227.
- Wolf, B. O. and C. Martínez del Rio. 2003. How important are CAM succulents as sources of water and nutrients for desert consumers? A review. *Isotopes in Environment and Health Science* 39: 53-67.
- Schondube, J. E. and C. Martínez del Rio. 2003. Concentration-dependent sugar preferences in nectar-feeding birds: mechanisms and consequences. *Functional Ecology* 17: 445-453.
- Martínez del Rio, C., B. O. Wolf, and R. Haughey. 2003. Saguaro and white-winged doves: the natural history of an uneasy partnership. In Nabhan, G. (ed.). *Conserving Migratory Pollinators and Nectar Corridors in Western North America*. Univ. of California Press
- Schondube, J. E. and C. Martínez del Rio. 2002 A bill with a hook: experimental evidence of a tradeoff in the morphology of flowerpiercers. *Proceedings of The Royal Society of London B*. 1511: 195-198.
- Aukema, J. and C. Martínez del Rio. 2002 Where do fruit-eating birds deposit mistletoe seeds? Seed deposition patterns and an experiment. *Ecology* 83: 3489-3496.
- Aukema, J. and C. Martínez del Rio. 2002. Inter- and intraspecific variation in mistletoe seed deposition. *Ecogeography* 25(2): 139-144.
- Aukema, J. and C. Martínez del Rio. 2002. Mistletoes as parasites and seed-dispersing birds as disease vectors: current understanding, challenges, and opportunities. Pages 99-110 in Levey, D. J., Silva, W. R., and M. Galetti. (eds.) *Seed Dispersal and Frugivory: Ecology, Evolution and Conservation*. CABI International Press. Oxfordshire. UK.

- Martínez del Rio, C., A. Silva, R. Medel, and M. Hourdequin. 1996. dispersers as disease vectors: bird transmission of mistletoe seeds to host plants. *Ecology* 77: 912-921.
- Silva, A. and C. Martínez del Rio. 1996. Effects of mistletoe parasitism the reproduction of cacti hosts. *Oikos* 75: 437-442
- Stern, D. L., S. Moon, and C. Martínez del Rio. 1996. Allometry of caste production in the soldier producing aphid *Pseudoregma alexandrii*. *Insect Sociaux* 43: 137-147.
- Bozinovic, F. and C. Martínez del Rio. 1996. Animals eat what they should not: why do they reject our foraging models? *Revista Chilena de Historia Natural* 69: 15-20.
- Martínez del Rio, C., M. E. Hourdequin, A. Silva, and R. Medel. 1995. Seed deposition and prevalence of the mistletoe *Tristerix* (Loranthaceae) on cacti: the effect of cactus size and perch selection of seed dispersers. *Aust. J. Ecol.* 20: 41-46.
- Martínez del Rio C. and S. H. Bullock. 1991. Parasitismo floral por abejas sociales (*Trigona spp*) en el árbol quiropterófilo *Crescentia alata* (Bignoniaceae). *Boletín de la Sociedad Botánica Mexicana* 50: 69-76.
- Arita, H. T. and C. Martínez del Rio. 1990. Interacciones flor-murciélago: un enfoque zoocéntrico. *Publicaciones Especiales* 4, Instituto de Biología, UNAM, México.
- Gryj, E., C. Martínez del Rio and I. Baker. 1990. Avian pollination and nectar use in *Combretum fruticosum* *Biotropica* 22: 266-271.
- Bullock, S. H., C. Martínez del Rio and R. Ayala. 1989. Bee visitation to trees of *Prockia crucis* differing in flower number. *Oecologia* 78: 389-393.
- Martínez del Rio, C. and L. E. Eguiarte. 1987. The effect of nectar availability on the foraging behavior of *Trigona testacea*. *Southwestern Naturalist* 32: 313-319.
- Eguiarte, L. E., C. Martínez del Rio and H. Arita. 1987. El polen y néctar como recursos: el papel ecológico de los visitantes a las flores de *Pseudobombax ellipticum* H.B.K. *Biotropica* 19: 74-82.
- Martínez del Rio, C. and L. E. Eguiarte. 1987. Bird visitation to *Agave salmiana*: comparison among hummingbirds and perching birds. *Condor* 89: 357-363.
- Martínez del Rio, C. and A. Búrquez. 1986. Nectar production and temperature dependent pollination in *Mirabilis jalapa* L. *Biotropica* 18: 28-31.

-Soberón J. and C. Martínez del Rio. 1985. Cheating and taking advantage in mutualistic systems. In Boucher, D. (Ed.). The biology of mutualism. Croom-Helm, London.

-Soberón, J. and C. Martínez del Rio. 1981. The dynamics of a plant-pollinator interaction. *Journal of Theoretical Biology* 91: 363-378.

### Natural History and Conservation Biology

-Soulé, M. E., Estes, J. Berger, J. and C. Martínez del Rio. 2003 Ecologically effective numbers of endangered keystone species: theory and practice. *Conservation Biology* 17: 1204-1209.

-Wolf, B. and C. Martínez del Rio. 2002. Flight path: Saguaro-feeding by desert birds. *Birding*. August 324-325.

-Martínez del Rio, C. 2001. On the travels and tribulations of two migrant pollinators: long-nosed bats and desert white-winged doves. *Wild Earth* 11: 14-21.

-Miller, B., B. Dugelby, D. Foreman, C. Martínez del Rio, R. Noss, M. Phillips, R. Reading, M. E. Soulé, J. Terborgh, and L. Wilcox. 2001. The importance of carnivores to healthy ecosystems. *Endangered Species Update* 18: 202-210.

-Martínez del Rio, C. and B. Broyles. 2000. The Sonoran Desert National Park: a modest proposal of extraordinary scope. *Wild Earth* 10 (2): 53-56.

-Lisk, R., O. Moctezuma and C. Martínez del Rio. 2000. Cooperative conservation: ongoing Wildland Projects efforts in the Sierra Madre Occidental, Mexico. *Wild Earth* 10 (1): 51-54.

-Martínez del Rio, C. 1997. The forgotten pollinators: a review. *Revista Chilena de Historia Natural* 70: 120-121.

-Simberloff, D., D. Doak, M. Groom, S. Trombulak, A. Dobson, S. Gatewood, M. Soulé, C. Martínez del Rio, and L. Mills. 1999. Regional and continental restoration. Pp. 65-98 In M. Soulé and J. Terborgh. *Continental Conservation: Scientific Foundations of Regional Reserve Networks*. Island Press, NY.

-Martínez del Rio, C. Murder by Mistletoe. 1995. *Natural History* 105: 64-70.

-Martínez del Rio, C. 1992. Great-Shrike-Tyrant (*Agriornis livida*) predation on a hummingbird (*Sephanoides sephanoides*). *Wilson Bulletin* 104: 368.

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

-Aranda, J. M., C. Martínez del Río, V. M. Magallon and L.C. Colmenero.1981. Los mamíferos de la Sierra del Ajusco. Comisión Coordinadora del Desarrollo Agropecuario del Distrito Federal, Mexico.