

APPENDIX

EMERGENCY RULEMAKING REQUEST TO PROHIBIT THE COMMERCIAL COLLECTION OF FRESHWATER TURTLES

EXHIBIT A

SCIENTIFIC EVIDENCE SHOWING TURTLES CAN NOT SUSTAIN HARVEST
FROM THE WILD WITHOUT LEADING TO POPULATION DEPLETIONS

EXHIBIT B

LITERATURE REVIEW SHOWING TURTLES BIOACCUMULATE MORE
AQUATIC CONTAMINANTS THAN OTHER ANIMALS

EXHIBIT C

U. S. FISH AND WILDLIFE SERVICE
LAW ENFORCEMENT MANAGEMENT INFORMATION SYSTEMS (LEMIS)
FROM 2002-2005
DALLAS WORT WORTH AIRPORT
EXPORTED 256,638 WILD CAUGHT TURTLES
Compact Disc includes spreadsheet marked as Exhibit C

EXHIBIT D

NOTES FROM “TURNING TURTLES INTO CASH” COMMERCIAL TURTLE
TRAPPERRECRUITMENT SEMINAR, CLEBURNE TEXAS MARCH 2007

EXHIBIT E

ONLINE EXPLOITATION OF FRESHWATER TURTLES FOR THE
INTERNATIONAL PET TRADE

EXHIBIT A

SCIENTIFIC EVIDENCE SHOWING TURTLES CAN NOT SUSTAIN HARVEST FROM THE WILD WITHOUT LEADING TO POPULATION DEPLETIONS

- Behler, J. L. 1997. Troubled times for turtles. Proceedings: conservation, restoration, and management of tortoises and turtles— an international conference. Available online at: <http://nytts.org/proceedings/proceed.htm> (accessed during June 2001).
- Belzer, B. 2002. A nine year study of eastern box turtle courtship with implications for reproductive success and conservation in a translocated population. *Turtle & Tortoise Newsletter*, 6:17-26.
- Boundy, J. 1998. A biological and harvest profile of the box turtle (*Terrapene carolina*) in Louisiana, with a proposed management plan. Louisiana Dept. of Wildlife & Fisheries, Baton Rouge.
- Brooks R.J., D.A. Galbraith, E.G. Nancekivell, and C.A. Bishop. 1988. Developing Management Guidelines for Snapping Turtles. In: Szaro RC, Severson KE, Patton DR (eds.) Management of Amphibians, Reptiles, and Small Mammals in North America. Proceedings of the Symposium, July 19-21, 1988, Flagstaff, Arizona. USDA Forest Service General Technical Report RM-166, pp174-179.
- Brooks R.J., G.P. Brown, and D.A. Galbraith. 1991. Effects of a sudden increase in natural mortality of adults on a population of the common snapping turtle (*Chelydra serpentina*). *Can. J. Zool.* 69:1214-1320.
- Buhlman, K. 2007. A Global Action Plan for Conservation of Tortoises and Freshwater Turtles Strategy and Funding Prospectus 2002-2007 Turtle Conservation Fund.
- Burke, V.J., M. Ostentoski, R.D. Nagle and J.D. Congdon. 1993. Common snapping turtles associated with ant mounds. *Journal of Herpetology* 27:114-115.
- Close, L.M., & R.A. Seigel. 1997. Differences in body size among populations of red-eared sliders (*Trachemys scripta elegans*) subjected to different levels of harvesting. *Chelonian Conservation & Biology*, 2(4), 563-566.
- Congdon, J.D., G.L. Breitenbach, R.C. van Loben Sels and D.W. Tinkle. 1987. Reproduction, nesting ecology, and hatchling success of snapping turtles (*Chelydra serpentina*) in southeastern Michigan. *Herpetologica* 43: 39-54.

- Congdon, J.D., A.E. Dunham and R.C. van Loben Sels. 1993. Delayed sexual maturity and demographics of Blanding's turtles: implications for conservation and management of long-lived organisms. *Journal of Conservation Biology* 7:826-833.
- Congdon, J.D., A.E. Dunham and R.C. van Loben Sels. 1994. Demographics of common snapping turtles: Implications for conservation and management of long-lived organisms. *American Zoologist* 34:397-408.
- Congdon, J.D., A.E. Dunham, and R.C. van Loben Sels. 1995. Delayed sexual maturity and demographics of Blanding's turtles: implications for conservation and management of long-lived organisms. p. 187-194. In: *Readings from Conservation Biology: To Preserve Biodiversity - An Overview*. D. Ehrenfeld (ed.).
- Congdon, J. D., R. D. Nagle, A. E. Dunham, C. Beck, O. M. Kinney, and S. R. Yeomans. 1999. An experimental analysis of the relationship between body size and survivorship of hatchling snapping turtles (*Chelydra serpentina*): an evaluation of the "bigger is better" hypothesis. *Oecologia* 121:224-235.
- Congdon, J. D., R. A. Nagle, O. M. Kinney, and R. C. van Loben Sels. 2001. Hypotheses of aging in a long-lived vertebrate (Blanding's turtle, *Emydoidea blandingii*). *Experimental Gerontology* 36:813-827.
- Congdon, J.D., D.W. Tinkle, G.L. Breitenbach and R.C. van Loben Sels. 1983. Nesting ecology and hatching success in the Blanding's turtle *Emydoidea blandingi*. *Herpetologica* 39:417-429.
- Congdon, J.D. and R.C. van Loben Sels. 1991. Growth and body size in the Blanding's turtles (*Emydoidea blandingi*): relationships to reproduction. *Canadian Journal of Zoology* 69:239-245.
- Congdon, J.D. and R.C. van Loben Sels. 1991. Relationships of reproductive traits and body size with attainment of sexual maturity and age in Blanding's turtles (*Emydoidea blandingi*). *Journal of Evolutionary Biology* 6:547-557.
- Crouse, D.T., L. B. Crowder, and H. Caswell. 1987. A stage-based population model for loggerhead sea turtles and implications for conservation. *Ecology* 68:1412-1423.
- Curtin, C.G. 1997. Biophysical analysis of the impact of shifting land use on ornate box turtles, Wisconsin, USA. In *Proceedings: Conservation, restoration, and management of tortoises & turtles-an international conference*. New York Turtle & Tortoise Society, New York.

- Dixon, J.R. 2000. Amphibians and reptiles of Texas. Second edition. Texas A&M University Press, College Station, USA.
- Dodd, C.K. 2001. *North American box turtles: A natural history*. Norman, University of Oklahoma Press.
- Doroff, A.M. and L.B. Keith. 1990. Demography and ecology of an ornate box turtle (*Terrapene ornata*) population in south-central Wisconsin. *Copeia*, 1990: 387-399.
- George, G. 1991. *Status and conservation of Graptemys barbouri, Graptemys flavimaculata, Graptemys oculifera and Graptemys caglei*. In Beaman, K.R.F. Caporaso, S McKeown, and M.D. Graff, eds. Proceedings of the First International Symposium on Turtles and Tortoises: Conservation and Captive Husbandry, 24-30. Chapman Univ., Orange California.
- Gibbons, J.W., D.E. Scott, T. J. Ryan, K.A. Buhlmann, T.D. Tuberville, B. S. Metts, J. L. Greene, T. Mills, Y. Leiden, S. Poppy, and C. T. Winne. 2000. The global decline of reptiles, Déjà Vu amphibians. *Bioscience* 50:653–666.
- Gibbons, J. Whitfield, D. E. Scott, T. Ryan, K. Buhlmann, T. Tuberville, J. Greene, T. Mills, Y. Leiden, S. Poppy, C. Winne, and B. Metts. 2000. The Global Decline of Reptiles, Déjà Vu Amphibians. *BioScience* (Cover Article) 50: 653-666.
- Heppell, S. S. 1998. Application of life history theory and population model analysis to turtle conservation. *Copeia* 1998: 367–375.
- Salzberg, A. 1995. Report on import/export turtle trade in the United States. Pages 314–322 in Proceedings of the International Congress of Chelonian Conservation. Gonfaron, France.
- Schwartz, C.W. and E.R. Schwartz. 1974. The three-toed box turtle in Missouri: Its population, home range, and movements. Missouri Dept. of Conservation, Terrestrial Series 5:1-28. Jefferson City, Missouri.
- Schwartz, C.W. and E.R. Schwartz. 1991. A quarter-century study of survivorship in a population of Three-toed Box Turtles in Missouri. *Copeia* 4: 1120-1123.
- Stickel, L.F. 1950. Population and home range of the Box Turtle, *Terrapene c. carolina* (Linnaeus). *Ecological Monographs* 20: 353-378.
- Stickel, L.F. 1978. Changes in a box turtle population during three decades. *Copeia*. 2: 221-225.
- Stickel, L.F. 1989. Home range behavior among boxturtles (*Terrapene c. carolina*) of a bottomland forest in Maryland. *Journal of Herpetology* 23(1): 40-44.

Tinkle, D.W., A.E. Dunham and J.D. Congdon. 1993. Life history and demographic variation in *Sceloporus graciosus*: a long-term study. *Ecology* 74:2413-2429.

Williams, T. 1995. The terrible turtle trade Audubon. 5 pp.

Wilson, G.L. and C.H. Ernst. 2005 Reproductive Ecology of the *Terrapene carolina carolina* (Eastern Box Turtle) in Central Virginia. *Southeastern Naturalist* 4(4)689-702.

EXHIBIT B

LITERATURE REVIEW SHOWING TURTLES BIOACCUMULATE MORE AQUATIC CONTAMINANTS THAN OTHER ANIMALS

- Ceballos, C. P. and L. A. Fitzgerald. 2004. The trade in native and exotic turtles in Texas. *Wildlife Society Bulletin* 32(3):1-12.
- Giggleman, C.M. 2005. Report Assessment of Trinity River Fisheries within the proposed Dallas County, Texas. US Fish and Wildlife Service, Arlington, Texas Ecological Services Field Office Arlington Texas 71 pp.
- Giggleman, C.M. and Lewis, J.M. 2003. Metals contamination in fish in reservoirs at Wichita Mountains Wildlife Refuge, Comanche County, Oklahoma. 131 pp.
- Giggleman, C.M., D.L. Baker, and J.D. Lusk. 1995. A contaminants survey of three lentic systems within the cypress creek watershed, Texas 1993-1995. 143 pp.
- Kennish, M.J. and B.E. Ruppel. 1998. Organochlorine contamination in selected estuarine and coastal marine finfish and shellfish of New Jersey. *Water, Air and Soil Pollution* 101:123-136.
- Mitchell, K.E. The use of freshwater aquatic turtles as indicator species for the bioaccumulation of methylmercury. University of Texas, Arlington.
- Portelli, M.J. and C.A. Bishop. 2000. Ecotoxicology of organic contaminants in reptiles: a review of the concentrations and effects of organic contaminants in reptiles. Pp. 495-543. *In* D.W. Sparling, G. Linder and C.A. Bishop (eds.). *Ecotoxicology of Amphibians and Reptiles*, Setac Press, Pensacola, Florida.
- Safe, S. 1994. Polychlorinated Biphenyls (PCBs): Environmental impact, biochemical and toxic response and implications for risk assessment. *CRC Critical Reviews of Toxicology* 24:87-149.
- Texas Department of Health. 2001. Fish advisories and Bans, 2001. Information is available at <http://www.tdh.state.tx.us/bfds/ssd/>
- Ward, J. and S. Bush. 2002. Texas Department of State Health Services Division of Seafood Safety Division of Environmental Epidemiology and Toxicology. *Quantitative Risk Characterization: Trinity River in Tarrant, Dallas, Henderson and Navarro Counties, Texas*. August 26 2002. 12 pp.

ADDITIONAL REFERENCES SHOWING BIOACCUMULATION IN TURTLES

- Aguirre, A. A., G. H. Balazs, B. Zimmerman, and F. D. Galey. 1994. Organic contaminants and trace metals in the tissues of green turtles (*Chelonia mydas*) afflicted with fibropapillomas in the Hawaiian Islands. *Mar.Pollut.Bull.* **28**:109-114.
- Alam S.K. and M.S. Brim. 2000. Organochlorine, PCB, PAH, and metal concentrations in eggs of loggerhead sea turtles (*Caretta caretta*) from northwest Florida, USA. *J.Environ.Sci.Health B Pestic.* 35[6], 705-724.
- Alava, J. J., J. M. Keller, J. R. Kucklick, J. Wyneken, L. Crowder, and G. I. Scott. 2006. Loggerhead sea turtle (*Caretta caretta*) egg yolk concentrations of persistent organic pollutants and lipid increase during the last stage of embryonic development. *Science of the Total Environment* **367**:170-181.
- Albers, P. H., L. Sileo, and B. M. Mulhern. 1986. Effects of environmental contaminants on snapping turtles of a tidal wetland. *Archives of Environmental Contamination and Toxicology* **15**:39-49.
- Anan, Y., T. Kunito, I. Watanabe, H. Sakai, and S. Tanabe. 2001. Trace element accumulation in Hawksbill turtles (*Eretmochelys imbricata*) and Green turtles (*Chelonia mydas*) from Yaeyama Islands, Japan. *Environ.Toxicol.Chem.* **20**:2802-2814.
- Bargar, T.A., G.I. Scott and G.P. Cobb. 2001. Maternal transfer of contaminants: case study of the excretion of three polychlorinated biphenyl congeners and technical-grade endosulfan into eggs by white leghorn chickens (*Gallus domesticus*). *Environmental Toxicology and Chemistry* 20:61-67.
- Bell, B., J. R. Spotila, and J. Congdon. 2006. High incidence of deformity in aquatic turtles in the John Heinz National Wildlife Refuge. *Environmental Pollution* **142**:457-465.
- Bergeron, J. M., D. Crews, and J. A. McLachlan. 1994. PCBs as environmental estrogens: Turtle sex determination as a biomarker of environmental contamination. *Environmental Health Perspective* **102**:780-781.
- Bickham, J. W., B. G. Hanks, M. J. Smolen, T. Lamb, and J. Whitfield Gibbons. 1988. Flow cytometric analysis of the effects of low-level radiation exposure on natural populations of slider turtles (*Pseudemys scripta*). *Archives of Environmental Contamination and Toxicology* **17**:837-841.
- Bishop, C.A., R.J. Brooks, J.H. Carey, P. Ng, R.J. Norstrom and D.R.S. Lean. 1991. The

- case for a cause-effect linkage between environmental contamination and development in eggs of the common snapping turtle (*Chelydra serpentina serpentina*) from Ontario, Canada. *Journal of Toxicology and Environmental Health* **33**:521-548.
- Bishop, C. A., D. R. S. Lean, R. J. Brooks, J. H. Carey, and P. Ng. 1995. Chlorinated hydrocarbons in early life stages of the common snapping turtle (*Chelydra serpentina serpentina*) from a coastal wetland on Lake Ontario, Canada. *Environ.Toxicol.Chem.* **14**:421-426.
- Bishop C.A., P. Ng, K.E. Pettit, S.W. Kennedy, J.J. Stegeman, R.J. Norstrom and R.J. Brooks. 1998. Environmental contamination and developmental abnormalities in eggs and hatchlings of the common snapping turtle (*Chelydra serpentina serpentina*) from the Great Lakes St Lawrence River basin (1989-91). *Environ.Pollut.* 101[1], 143-156.
- Bishop, C. A., G. P. Brown, R. J. Brooks, D. R. S. Lean, and J. H. Carey. 1994. Organochlorine contaminant concentrations in eggs and their relationship to body size, and clutch characteristics of the female common snapping turtle (*Chelydra serpentina serpentina*) in Lake Ontario, Canada. *Archives of Environmental Contamination and Toxicology* **27**:82-87.
- Bishop, C. A., P. Ng, R. J. Norstrom, R. J. Brooks, and K. E. Pettit. 1996. Temporal and geographic variation of organochlorine residues in eggs of the common snapping turtle (*Chelydra serpentina serpentina*) (1981- 1991) and comparisons to trends in the herring gull (*Larus argentatus*) in the Great Lakes basin in Ontario, Canada. *Archives of Environmental Contamination and Toxicology* **31**:512-524.
- Bonin, J., J. L. DesGranges, C. A. Bishop, J. Rodrigue, A. Gendron, and J. E. Elliott. 1995. Comparative study of contaminants in the mudpuppy (Amphibia) and the common snapping turtle (Reptilia), St Lawrence River, Canada. *Archives of Environmental Contamination and Toxicology* **28**:184-194.
- Burger, J., and J. W. Gibbons. 1998. Trace elements in egg contents and egg shells of slider turtles (*Trachemys scripta*) from the savannah river site. *Archives of Environmental Contamination and Toxicology* **34**:382-386.
- Clark, D. R., and A. J. Krynitsky. 1985. DDE residues and artificial incubation of Loggerhead sea turtle eggs. *Bulletin of Environmental Contamination and Toxicology* **34**:121-125.
- Clark, Jr. D. R., J. W. Bickham, D. L. Baker, and D. F. Cowman. 2000. Environmental contaminants in Texas, USA, wetland reptiles: evaluation using blood samples. *Environ.Toxicol.Chem.* **19**:2259-2265.
- Congdon, J.D. 1989. Proximate and evolutionary constraints on energy relations of

- reptiles. *Physiological Zoology* 62:356-373.
- Congdon, J.D., A.E. Dunham and D.W. Tinkle. 1982. Energy budgets and life histories of reptiles. Pp 155-199. *In* C. Gans and F.H. Pough (eds.) *Biology of the Reptilia* Vol. 13. Academic Press, New York, New York.
- Congdon, J.D., A.E. Dunham, W.A. Hopkins, C.L. Rowe and T.G. Hinton. 2001. Resource allocation-based life histories: a conceptual basis for studies of ecological toxicology. *Environmental Toxicology and Chemistry* 20:1698-1703.
- Corsolini, S., S. Aurigi and F. Focardi. 2000. Presence of polychlorobiphenyls (PCBs) and coplanar congeners in the tissues of the Mediterranean loggerhead turtle *Caretta caretta*. *Marine Pollution Bulletin* 40:952-960.
- Costanzo, J.P., S.A. Dinkelacker, J.B. Iverson and R.E. Lee, Jr. 2004. Physiological ecology of overwintering in the hatchling painted turtle: Multiple-scale variation in response to environmental stress. *Physiological and Biochemical Zoology* 77:74-99.
- de Solla, S. and K. J. Fernie. 2004. Characterization of contaminants in snapping turtles (*Chelydra serpentina*) from Canadian lake Erie Areas of Concern: St. Clair River, Detroit River, and Wheatley Harbor. *Environmental Pollution* 132:101-112.
- de Solla, S., C. Bishop, and R. Brooks. 2002. Sexually dimorphic morphology of hatchling snapping turtles (*Chelydra serpentina*) from contaminated and reference sites in the Great Lakes and St Lawrence River basin, North America. *Environmental Toxicology and Chemistry* 21:922-929.
- deSolla, S. R., C. A. Bishop, G. VanderKraak, and R. J. Brooks. 1998. Impact of organochlorine contamination on levels of sex hormones and external morphology of common snapping turtles (*Chelydra serpentina serpentina*) in Ontario, Canada. *Environ.Health.Perspect.* 106:253-260.
- de Solla, S.R., C.A. Bishop, H. Lickers and K. Jock. 2001. Organochlorine pesticides, PCBs, Dibenzodioxin, and furan concentrations in common snapping turtle eggs (*Chelydra serpentina serpentina*) in Akwesasne, Mohawk Territory, Ontario, Canada. *Archives of Environmental Contamination and Toxicology* 40:410-417.
- Ernst, C.H., J.E. Lovich and R.W. Barbour. 1994. *Turtles of the Unites States and Canada*. Smithsonian, Washington D.C.
- Frazer, N.B., J.W. Gibbons and J.L. Greene. 1991. Life history and demography of the common mud turtle *Kinosternon subrubrum* in South Carolina. *Ecology* 72:2218-2231.
- Fritts, T.H. and M.A. McGehee. 1981. Effects of Petroleum on the Development and

- Survival of Marine Turtle Embryos. Report to US Department of the Interior, Fish and Wildlife Service, Contract No.121-16-0, Washington, D.C.
- Gardner, S. C., S. L. Fitzgerald, B. A. Vargas, and L. M. Rodriguez. 2006. Heavy metal accumulation in four species of sea turtles from the Baja California Peninsula, Mexico. *BioMetals* **19**:91-99.
- Gardner, S. C., M. D. Pier, R. Wesselman, and J. A. Juarez. 2003. Organochlorine contaminants in sea turtles from the Eastern Pacific. *Mar.Pollut.Bull.* **46**:1082-1089.
- Henny, C., K. Beal, R. Bury, and R. Goggans. 2003. Organochlorine pesticides, PCBs, trace elements and metals in western pond turtle eggs from Oregon. *Northwest Science*:46-53.
- Holcomb, C. M., and W. S. Parker. 1979. Mirex residues in eggs and livers of two long-lived reptiles (*Chrysemys scripta* and *Terrapene carolina*) in Mississippi, 1970-1977. *Bulletin of Environmental Contamination and Toxicology* **23**:369-371.
- Holladay, S.D., J. C. Wolf, S.A. Smith, D.E. Jones and J.L. Robertson. 2001. Aural abscesses in wild-caught box turtles (*Terepene carolina*): Possible role of organochlorine-induced hypovitaminosis A. *Ecotoxicology and Environmental Safety* **48**:99-106.
- Hopkins W.A., Roe J.H., Snodgrass J.W., Jackson B.P., Kling D.E., Rowe C.L. & Congdon J.D. Nondestructive indices of trace element exposure in squamate reptiles. *Environ.Pollut.* **115**[1], 1-7. 2001.
- Hopkins, W.A., C.L. Rowe and J.D. Congdon. 1999. Elevated trace element concentrations and standard metabolic rate in banded water snakes (*Nerodia fasciata*) exposed to coal combustion wastes. *Environmental Toxicology and Chemistry* **18**:1258-1263.
- Irwin L.K., S. Gray S., and E Oberdorster. 2001. Vitellogenin induction in painted turtle, *Chrysemys picta*, as a biomarker of exposure to environmental levels of estradiol. *Aquatic Toxicology* **55**[1-2], 49-60.
- Iverson, J.B. 1991. Patterns of survivorship in turtles order Testudines. *Canadian Journal of Zoology* **69**:385-391.
- Kampalath, R., S. C. Gardner, L. Mendez-Rodriguez, and J. A. Jay. 2006. Total and methylmercury in three species of sea turtles of Baja California Sur. *Marine Pollution Bulletin* **52**:1816-1823.
- Keller, J. M., J. R. Kucklick, M. A. Stamper, C. A. Harms, and P. D. McClellan-Green. 2004. Associations between organochlorine contaminant concentrations and

- clinical health parameters in loggerhead sea turtles from North Carolina, USA. *Environmental Health Perspectives* **112**:1074-1079.
- Keller, J. M., P. D. McClellan-Green, J. R. Kucklick, D. E. Keil, and M. M. Peden-Adams. 2006. Effects of organochlorine contaminants on loggerhead sea turtle immunity: Comparison of a correlative field study and in vitro exposure experiments. *Environmental Health Perspectives* **114**:70-76.
- Keller, J. M., J. R. Kucklick, C. A. Harms, and P. D. McClellan-Green. 2004. Organochlorine contaminants in sea turtles: Correlations between whole blood and fat. *Environmental Toxicology and Chemistry* **23**:726-738.
- Keller, J. M., K. Kannan, S. Taniyasu, N. Yamashita, R. D. Day, M. D. Arendt, A. L. Segars, and J. R. Kucklick. 2005. Perfluorinated compounds in the plasma of loggerhead and Kemp's ridley sea turtles from the southeastern coast of the United States. *Environmental Science & Technology* **39**:9101-9108.
- King K.A., C.T. Martinez, and P.C. Rosen. 1996. Contaminants in Sonoran mud turtles from Quitobaquito Springs, Organ Pipe Cactus National Monument, Arizona. Phoenix, Arizona, USFWS.
- Lake, J. L., R. Haebler, R. McKinney, C. A. Lake, and S. S. Sadove. 1994. PCBs and other chlorinated organic contaminants in tissues of juvenile Kemp's ridley turtles (*Lepidochelys kempii*). *Mar. Environ. Res.* **38**:313-327.
- Lam, J. C. W., S. Tanabe, S. K. F. Chan, M. H. W. Lam, M. Martin, and P. K. S. Lam. 2006. Levels of trace elements in green turtle eggs collected from Hong Kong: Evidence of risks due to selenium and nickel. *Environmental Pollution* **144**:790.
- Lamb, R., J. W. Bickham, J. W. Gibbons, M. J. Smolen, and S. McDowell. 1991. Genetic damage in a population of slider turtles (*Trachemys scripta*) inhabiting a radioactive reservoir. *Archives of Environmental Contamination and Toxicology* **20**:138-142.
- Lamb, T., J. W. Bickham, T. B. Lyne, and J. W. Gibbons. 1995. The slider turtle as an environmental sentinel: Multiple tissue assays using flow cytometric analysis. *Ecotoxicology*. **4**:5-13.
- Lance, V. A., T. Cort, J. Masuoka, R. Lawson, and P. Saltman. 1995. Unusually high zinc concentrations in snake plasma, with observations on plasma zinc concentrations in lizards, turtles and alligators. *Journal of Zoology* **235**:577-585.
- Lind, P.M., J. Orberg, U. Edlund, L. Sjoblom and L. Lind. 2004. The dioxin-like pollutant PCB 126 (3,3',4,4',5-pentachlorobiphenyl) affects risk factors for cardiovascular disease in females. *Toxicology letters* **150**:293-299.

- Lutcavage, M.E., P.L. Lutz, G.D. Bossart and D.M. Hudson. 1995. Physiologic and clinicopathologic effects of crude oil on loggerhead sea turtles. *Archives of Environmental Contamination and Toxicology* 28:417-422.
- Maffucci, F., F. Caurant, P. Bustamante, and F. Bentivegna. 2005. Trace element (Cd, Cu, Hg, Se, Zn) accumulation and tissue distribution in loggerhead turtles (*Caretta caretta*) from the Western Mediterranean Sea (southern Italy). *Chemosphere* **58**:535-542.
- Mahmoud, I.Y., L.J. Guillette Jr., M.E. McAsey and C. Cady. 1989. Stress-induced changes in serum testosterone, estradiol-17 β and progesterone in the turtle, *Chelydra serpentina*. *Comparative Biochemistry and Physiology* 93A: 423-427.
- Matter, J. M., D. A. Crain, C. Sills-McMurry, D. B. Pickford, T. R. Rainwater, K. D. Reynolds, A. A. Rooney, R. L. Dickerson, and Jr. L. J. Guillette. 1999. Effects of endocrine-disrupting contaminants in reptiles: alligators. Pages 267-289 in *Principles and processes for evaluating endocrine disruption*.
- McKenzie C., B.J. Godley, R.W. Furness, and D.E. Wells. 1999. Concentrations and patterns of organochlorine contaminants in marine turtles from Mediterranean and Atlantic waters. *Mar. Environ. Res.* 47[2], 117-135. 1999.
- Meyers-Schöne, L. and B.T. Walton. 1994. Turtles as monitors of chemical contaminants in the environment. *Reviews of Environmental Contamination and Toxicology* 135:93-153.
- Nagle R.D., C.L. Rowe, and J.D. Congdon. 2001. Accumulation and selective maternal transfer of contaminants in the turtle *Trachemys scripta* associated with coal ash deposition. *Archives of Environmental Contamination and Toxicology* 40[4], 531-536.
- Pagano J.J., P.A. Rosenbaum, R.N. Roberts, G.M. Sumner and L.V. Williamson. 1999. Assessment of maternal contaminant burden by analysis of snapping turtle eggs. *J. Great Lakes Res.* 25[4], 950-961.
- Palmer, B. D., and S. K. Palmer. 1995. Vitellogenin induction by xenobiotic estrogens in the red-eared turtle and African clawed frog. *Environmental Health Perspective* **103**:19-25.
- Parker, W.S. 1996. Age and survivorship of the slider (*Trachemys scripta*) and the mud turtle (*Kinosternon subrubrum*) in a Mississippi Farm Pond. *Journal of Herpetology* 30:266-268.
- Rie, M. T., K. A. Lendas, B. R. Woodin, J. J. Stegeman and I. P. Callard. 2000. Hepatic

- biotransformation enzymes in sentinel species, the painted turtle (*Chrysemys picta*), from Cape Cod Massachusetts: seasonal-, sex-, and location-related differences. *Biomarkers* 5:382-394.
- Rybitski, M. J., R. C. Hale, and J. A. Musick. 1995. Distribution of organochlorine pollutants in Atlantic Sea turtles. *Copeia* 379-390.
- Sahoo, G., R. K. Sahoo, and P. MohantyHejmadi. 1996. Distribution of heavy metals in the eggs and hatchlings of olive ridley sea turtle, *Lepidochelys olivacea*, from Gahirmatha, Orissa. *Indian J.Mar.Sci.* **25**:371-372.
- Sakai, H., H. Ichihashi, H. Suganuma, and R. Tatsukawa. 1995. Heavy Metal Monitoring in Sea Turtles Using Eggs. *Mar.Pollut.Bull.* **30**:347-353.
- Shirose L., C. Bishop, and A. Gendron. 1996. Amphibians and reptiles in Great Lakes Wetlands: Threats and conservation. Canada, Authority of the Minister of the Environment.
- Struger, J., J. E. Elliott, C. A. Bishop, M. E. Obbard, R. J. Norstrom, D. V. C. Weseloh, M. Simon, and P. Ng. 1993. Environmental Contaminants in Eggs of the Common Snapping Turtle (*Chelydra serpentina serpentina*) from the Great- Lakes St- Lawrence River Basin of Ontario, Canada (1981, 1984). *Journal of Great Lakes Research* **19**:681-694.
- Tangredi, B. P., and R. H. Evans. 1997. Organochlorine pesticides associated with ocular, nasal, or otic infection in the eastern box turtle (*Terrapene carolina carolina*). *J.Zoo.Wildlife Med.* **28**:97-100.
- Van Meter, R. J., J. R. Spotila, and H. W. Avery. 2006. Polycyclic aromatic hydrocarbons affect survival and development of common snapping turtle (*Chelydra serpentina*) embryos and hatchlings. *Environmental Pollution* **142**:466-475.
- Vazquez, G. F., M. C. Reyes, G. Fernandez, J. E. C. Aguayo, and V. K. Sharma. 1997. Contamination in marine turtle (*Dermodochelys coriaca*) egg shells of Playon de Mexiquillo, Michoacan, Mexico. *Bulletin of Environmental Contamination and Toxicology* **58**:326-333.
- White, R. B., and P. Thomas. 1992. Whole-body and plasma concentrations of steroids in the turtle, *Trachemys scripta*, before, during and after the temperature-sensitive period for sex determination. *Journal of Experimental Zoology* **264**:159-166.
- Willingham, E. 2001. Embryonic exposure to low-dose pesticides: Effects on growth rate in the hatchling red-eared slider turtle. *J.Toxicol.Environ.Health Pt.A* 64[3], 257-272.

- Willingham E., T. Rhen, J.T. Sakata, and D. Crews. 2000. Embryonic treatment with xenobiotics disrupts steroid hormone profiles in hatchling red-eared slider turtles (*Trachemys scripta elegans*). *Environmental Health Perspective* 108[4], 329-332.
- Willingham, E. 2005. The effects of atrazine and temperature on turtle hatchling size and sex ratios. *Frontiers in Ecology and the Environment* 3:309-313.
- Willingham E. and D. Crews. 2000. The red-fared slider turtle: An animal model for the study of low doses and mixtures. *Amer.Zool.* 40[3], 421-428.
- Yawetz, A., M. BenedekSegal, and B. Woodin. 1997. Cytochrome P4501A immunoassay in freshwater turtles and exposure to PCBs and environmental pollutants. *Environ.Toxicol.Chem.* 16:1802-1806.
- Yawetz, A., B.R. Woodin and J.J. Stegeman. 1998. Cytochromes P450 in liver of the turtle *Chrysemys picta picta* and the induction and partial purification of CYP1A-like proteins. *Biochimica et Biophysica Acta* 1381:12-26.

EXHIBIT C

US FISH AND WILDLIFE SERVICE
LAW ENFORCEMENT MANAGEMENT INFORMATION
SYSTEMS (LEMIS)
FROM 2005-2002 DALLAS WORT WORTH AIRPORT
EXPORTED 256,638 WILD CAUGHT TURTLES
Compact Disc includes spreadsheet marked as Exhibit C

EXHIBIT D

NOTES FROM “TURNING TURTLES INTO CASH” COMMERCIAL TURTLE TRAPPER RECRUITMENT SEMINAR. CLEBURNE TEXAS MARCH 2007

MICROCASSETTE AUDIO TAPE PROVIDED IN PACKET MARKED AS EXHIBIT D

Bayou Bob recruitment meeting
Cleburne Civic Center, Cleburne, TX
March 7, 2007 – 6:30 pm

Unless otherwise indicated, all the comments listed were made by “Bayou” Bob Poplewell during his presentation

- The purpose of this meeting is to enlist an “army”, the motivation to join this army is money.
- The company holds licenses to collect in Texas, Florida, Oklahoma and Louisiana
- There are currently 450 people that are currently collecting turtles in Texas as part of the co-op; these people come from all walks of life
- Some members of the co-op collect full-time; that is not recommended because it is such hard work and it would be easy to get burned out
- Joining the co-op will help people gain life long skills
- People that join will receive a membership kit that includes:
 - Instructional DVD starring Bob
 - 2 traps
 - Field guide book
 - Rules and regulations for your area
 - Lots of useful materials for best results
 - Tickets (\$300 value) to a training seminar at the ranch that includes a day of field demos, chuck wagon lunch and camping the night before
 - Access to a hotline number answered by Bob for any turtling questions
 - Electronic files of posters that you can distribute to grow your business
 - ⌚ Full color images
 - ⌚ You can insert you name and contact information
 - ⌚ Poster verbiage “Do you want more fish in your lake? Do you have too many turtles?”
 - ⌚ These can be distributed door to door, posted in various locations (cafes, tractor supply stores, farm bureaus, feed stores)
 - ⌚ Getting the word out to a few ranchers will create a ripple effect as they spread the word to their friends

- The education and training that co-op participants will receive is equal to 13 years of turtling expertise, condensed into a two day intensive training session
- Turtles have little pea brains and are easy to outsmart, but there are still techniques that can increase your success
- Another recruitment meeting will be held in Stephenville tomorrow at the A&M Research Center
- There are incentives for bringing your friends into the co-op; for everyone that you recruit you will receive either an additional trap or \$50 cash
- The company needs to have enough people working in every region to make a trip to that area to pick up turtles economically feasible
- “You will never catch all of the turtles out of any lake”
- There are “millions and millions” of red-eared sliders in Texas. These numbers are grossly inflated because of all of the artificial habitat that we have created (including lakes, tens of thousands of stock ponds, etc.). They are not supposed to be here.
- Bob will buy red-eared sliders, common snapping turtles, softshell turtles (spiny and smooth), water turtles, cooters, chicken turtles, mud turtles, any and all snakes and bait fish for turtle traps (especially carp).
- He recommends leaving public waters alone.
- Turtles move into ponds and other bodies of water via migration. They are motivated to migrate when they run out of food in one pond and are forced out to find more food (overpopulated).
- There are more turtles in Texas today (4000-5000% more) than there were just 100 years ago
- He hatches 60,000 turtles each year at his ranch
- Running 6-8 traps can result in 100 turtles per night
- You’ll learn to hate red-eared sliders; they are cheap because they are so abundant (you’ll catch 95 RES for every 5 of any other kind of more valuable turtle). However, you will make up the money in the sheer quantity.
- One example, if you have eight traps you can catch 112 turtles in a night that equal about 350 lbs. If you get just one good size softshell or snapper in there you could have a \$40 turtle that could really boost the value of that catch
- Snapping turtles are what they really want – they are currently going for \$1 per pound, with a \$0.40 per pound bonus.
- Regarding catching hatchlings – there is no problem with doing so. Only 3% of them survive anyway and their mothers don’t take care of them.
 - “There is no such thing as too small a turtle”
 - “A pound is a pound”
 - There are “crazy” rules in Oklahoma about the size of mesh on traps that allow the little ones to escape, but we don’t have that in Texas
 - When the small turtles die, they make them into Indian rattles and sell them to the Indians in Oklahoma (“they don’t want to kill them themselves because of the bad karma so they have Bayou Bob do it and then they shake them around and dance and get their good karma”)
- Turtles can grow by 1 lb. per year with a good food supply.
- Stock tanks represent a lot of turtle meat; there are some in virtually every stock tank.

- Ranchers don't want turtles around; they eat their fish.
- Bob is not interested in buying box turtles and other land turtles; they may be protected soon anyway
- Strengths of the co-op
 - Power in numbers
 - Volume harvest at one source
 - Selling with new contracts
 - Lobby efforts are improved
 - Buying power is improved
 - Stabilizes market prices
 - Networking and sharing of technology is increased
 - Bonuses / profit sharing
 - Win with numbers
 - Learning curves are minimized
- Ponds that are 'turtled' will be restocked via migration
- It is important that you dump the turtles in your traps into your vehicle and get them back in the water ASAP: if they're not in the water, you can't make money
- Your instructional materials will show you how to make more traps, but they will not be of as high a quality as the ones that Bob provides
- You have to have a hunting license and a non-game collector's permit
- Bob's company also has a dealer's license
- They are looking to recruit at least 15-20 people through this meeting for this area
- They have faxed flyers to some of the rural high schools looking for boys to join
- This is the only turtle co-op in Texas; if you corner a "market" or area you are it – no competition
- The turtles that you bring to Bob have to be healthy enough to make a 90 hour trip to China
- Turtles live in water to control temperatures, avoid insects and to access their food supply
- Chicken did better than carp in traps in parts of Texas last year; advantage is that chicken can be cheap and is not as smelly as carp
- You can also make a deal with your local meat market manager to get the outdated meat for free (chicken and salmon are best; turtles don't eat beef or pork – not a natural food supply)
- If you want to use carp, there is an easy way to catch a lot of them very quickly
 - Buy a bag or bucket of range cubes from the feed store and dump them in a single pile in the water
 - Wait for about an hour and then start casting near that pile and you can catch all you want
- "You have to spend money to make money" – that's why it costs to join the co-op.
 - There are other advantages - Investment increases motivation

- \$249 to join
- Free bonus trap if you sign up tonight
- Your money can be made back in 10 days to 2 weeks easily
- Bob's company ships both overseas and locally
- "Get your share of the bounty"
- "Who in the room has shot a turtle before?" A few hands went up. "Okay, a few...the rest of you are lying. Everyone shot turtles when they were a kid."
 - They catch turtles with bullet holes in their shells all the time – they are tougher than you might think
 - If Bob had his way, he would replace those cross hairs with dollar signs to remind you that turtles can equal cash
- "You have the right to catch turtles and convert them to cash"
- We criticize Asia for the "weird" things that they eat, but then we throw live lobsters in boiling water. We have no right to criticize.
- Some figures about Asia
 - There are more people in Asia that eat turtles than there are American people.
 - There are also more people in Asia that keep turtles as pets than there are American people.
 - There are still 1 billion more that don't do either.
 - Chinese people are friendly, but China is not our friend; they are a force to be feared – they are just too big. Still a communist regime.
 - They currently have more free enterprise than America has seen in 150 years; one drawback to their hands-off approach is the pollution that they are faced with
- Bob has sent armadillos to China
- The number one priority in the Chinese regime is to feed their people to prevent rising – even if it is with animals that we consider to be vermin (like turtles). We are helping them by supplying their people with a food supply.
- He is currently working out contracts to start sending feral hogs to China.
- Leisure fishing is becoming a thing of the past because turtles are eating the fish
 - Lake Fork biologists have been getting complaints about not enough fish and too many turtles
- China really knows how to propagate animals; one example is paddlefish
 - They are rare in Texas, but Bob has visited a facility in China that had more than a half-million of them
 - They harvest the caviar and then stitch the fish back up and return them to the water
 - Caviar is worth its weight in gold
- Bob has also produced four videos about snakes and a book Snake proofing your dog
- Eating turtles is common on the east coast, Maryland and in New Orleans; they have been used as a food source for hundreds of years
- His contract requires a steady flow of turtles and focuses on both quality and quantity

- Turtles are worth more and more, the worse our economy gets
- China pays for turtles with US dollars; they hold more greenbacks than the US does. When they decide to cash those in we are going to be in real trouble. If our economy

crashes, co-op members will be protected because they can still sell turtles to make money to get by on.

- Bob sets up to 50 traps in one night and can pull 2,000 turtles in 24 hours
- Some people in east Texas have purchased 25-30 traps from Bob
- You will eventually become trained in doing “turtle recon” and will find yourself glancing in drainage ditches as you pass them, looking for willow trees in fields, etc.
- Some people will even pay you to turtle their pond for them – taking payment is at your discretion but you should at least offer to do it for free since you’ll be paid for the turtles. If you get paid by them too, that’s just more extra money for you.
- Snake clarification: he’ll buy any that aren’t protected, but there aren’t any that are in this area – just some that they have to report. Nothing to worry about.
- Snakes are bought for the exhibit at the snake ranch on the interstate; hatchlings or babies that are produced there are sold.
- There aren’t any alligator snapping turtles (ASTs) around here at all
- There are ASTs in east Texas. It is not illegal to catch them in the traps; it is just illegal to hold them. The trappers get around this by just releasing the ones that they catch.
- ASTs are decreasing in numbers because they are just so “big and dumb” and have to eat all the time. They get caught on people’s trotlines and then get shot.
- The red-eared slider market goes up and down on a regular basis
 - You will be taught how to hold red-eared sliders so that you can cash them in when the market is high
 - Kiddie pools from Wal-Mart – should be kept in the shade
 - Big blue barrels – you can turn them on their side and just cut a hole big enough to drop turtles in. These should also be kept in the shade. Bob’s ranch has about 450 of these barrels holding turtles.
 - You don’t have to clean the water; they live in cattle urine and filthy water anyway. They are not drinking it, they are just living in it to keep cool.
 - Different species should be kept separately – they’ll prey on each other.
 - Regarding capacity – you can fill every square inch of the water surface in that barrel one turtle deep; you just want to avoid stacking them
 - You can also build a submersible cage and keep turtles in there if you have a pond on your property
- Bob travels to east Texas once per week to collect from his trappers
 - 6,000-10,000 lb. per week
 - His large trailer holds about 14,000 lb. of turtles
 - He also has a smaller trailer that holds about 8,000 lb.
- To determine when pick-ups are scheduled, you have to call and report what you have collected. Once there are enough waiting to be picked up in an area, Bob will come down.

- You can also take your turtles to his snake ranch on Sunday afternoons; they start collecting and paying out about 6:00 pm in the summer to avoid the heat of the day and continue until about thirty minutes before dark
 - You have to have your licenses on you when you transport the turtles; game wardens can impound your car
- The state created this \$18 non-game collectors permit (basically like a tax) to make money off of people like Bob. They saw how well he was doing and decided to get their cut, too.
- He won't buy ASTs, but they do not occur in this area at all so that is not even something to worry about.
 - The market for red-eared sliders really dipped last summer
 - They tried to keep buying to help out their trappers, but they got saturated with turtles
 - They dropped the price to \$0.10 per pound to try to keep buying them
 - He knows that people starting dumping them off bridges, etc. and throwing them back in ponds and he doesn't want this to happen again
 - If it does happen again, he urges his collectors to find some place to hold them; they can survive on cheap dog food
 - Phyllis, the comptroller, is here tonight and ready to take money
 - If you aren't prepared to pay tonight, they will take post-dated checks and even credit card numbers to be run at a later date
 - The \$249 price is a special deal for tonight only and the bonus trap is also only available tonight
 - Rattlesnake rattle key chains that they made at the ranch were distributed as door prizes
 - "Get your share of this bountiful harvest"
 - Turtle co-op members will automatically be enrolled in the feral hog co-op when it is up and running (and vice versa)
 - Some perks – you'll make friends and be invited to go fishing in some beautiful ponds and tanks
 - He recommends getting an 8 foot dowel to maneuver your traps
 - No longer than eight feet because those will lie down in the bed of the truck. If it is longer and propped on the edge of the bed, your turtles will crawl up and get away.
 - Also should get some gloves to prevent bites
 - You'll have to camouflage your traps
 - If you accidentally catch fish it is just because they are starving and desperate for food. You'll catch "mud cat" occasionally – just poke a big hole in them and let them move around. This will chum up the water and attract more turtles.
 - Bob's associate makes bait baskets for the traps – if you sign up tonight you will also get those for free, along with clips to mount them
 - He has a collector in Rio Vista – not far from Cleburne – that is only turtling part time and made \$300-400 in about two weeks.
 - If you get three traps you can have them set and working in about 20 minutes
 - You will be an independent contractor, but Bob will not provide a 1099 tax form

- Doing this is just like collecting cans; you don't have to report
- This is an opportunity to “work smart” – this is a franchise. Keep ALL your receipts for expenses (mileage, gas, bait, etc.) and write it off.
- You'll also get receipts from Bob when you cash in your turtles.

- Every time you crank your car and you have traps in the water that are working for you, you can write off your mileage and gas. Even when you go to the movies, you are still turtling – write your transportation costs off.
- “Be careful” in public water – I'm not saying you can't work there, but the rules change. You also can't catch as many as you can in private waters.
- When you join the co-op you are essentially buying a license agreement. Up to four people can be on this agreement but all must have hunting licenses and collector permits. He doesn't recommend splitting a share because the work never ends up being split evenly and this can ruin friendships.
- He has a couple of collectors in east Texas that are making about \$25,000 every six months.
- When you go to collect your trap, approach quietly and lift the edge hoop immediately to catch any that may be really big and stuck in the door way. Otherwise they can back out and get away.
- They use D-traps
 - Like hoop traps, but with a flat-bottom
 - Easier to set than hoop nets – you don't need a boat, you can just throw them in the water
 - There are three hoops, just like a hoop trap, but the flat bottom is the difference
 - 24” wide bottom, about 39” in length
- You can get 35-40 turtles in a trap at a time, which can make them very heavy and hard to lift
- The \$0.40 per pound bonus on snappers and softshells is through May
- Bob can catch 30,000 turtles himself in one summer
- You can basically clean out a pond in one night
 - You will NEVER catch more than 80% of the turtles in any body of water
 - The 20% that remain are the ones that are trap-wary
 - These 20% are good because they help to repopulate that pond
 - You need to be working multiple ponds; look to work in a 20-mile radius
- Pick-up locations
 - Bob will bring his trailers and come to a pick-up spot that is convenient for all of the collectors in a region
 - These locations are often businesses or private lands
 - Shade is required
 - When you drop off turtles, you are asked to help unload the truck before yours, your own, and the truck after you. This speeds up the process.
 - He can purchase 5,000-6,000 lb. in one hour using this method
- Public lakes are not off-limits
 - You have to label your trap with your name and phone number

- You have to watch out for treehuggers and fishermen that will destroy or remove your traps
- They have to be set in a way that prevents them from inadvertently catching fish – the throat of the trap has to be out of the water.
- There is a document in the start-up packet that Bob has created that explains the benefits and drawbacks of turtling in public vs. private waters
- Turtles are not as ecologically damaging in public waters as they are in private waters

Other notes:

- Bob was wearing a long-sleeved dress shirt with “Texas Parks and Wildlife Department” embroidered on the chest. It looked like a uniform shirt.
- He had several live turtles there in tubs; various sizes of common snappers and red-eared sliders. He handled them roughly and tossed them back into the buckets when he was done showing them to the attendees. He held one large snapper up by the tail and repeatedly hit and slapped it in the face to try to make it snap or bite at him to demonstrate that they are biters.
- There were approximately 30 people in attendance.

After the meeting:

- I asked Bayou Bob about future meetings and found out that he’s holding meetings in Stephenville on March 8 and in Waco one week later.
- I asked if he asked his collectors to only collect in Texas or if we could trap in other areas that we visit (on weekend trips, etc.). He said that to trap in Oklahoma or Louisiana was more expensive because the permits are more expensive. He said that the prices there are pretty ridiculous, but in Texas ‘they’re giving this stuff away.’
- He said that if I know other people that are interested in joining but can’t make it to a meeting that I could give them his business card. He is always willing to talk to people one on one at his ranch to tell them about the co-op and bring them on board.

END NOTES

2. MEDIA ARTICLES

'Turtling' proposal has area biologists snapping back
Friday, March 16, 2007

By Tim Woods

Tribune-Herald staff writer

Snapping turtles, beware! “Bayou Bob” is looking for you and he’s recruiting an army to find you. Bob Popplewell, better known as Bayou Bob, was in Waco this week recruiting area residents to trap turtles, which he then plans to buy and sell to contractors in China to be kept as pets for the family or eaten by the family for dinner. Twelve people attended Popplewell’s meeting at the Clarion Inn on Wednesday night. Popplewell said four signed up afterward, forking over \$249 each. That got each of them two turtle traps

and a DVD on “turtling.” They still must come up with enough money to buy state licenses to trap the reptiles. But not all of those in attendance were fans of the idea. One was a biology student whose questions suggested skepticism about Bayou Bob’s call to traps. While Popplewell says he sees turtle-trapping as a way for people to make extra pocket money, biologists fear the business will land yet more turtle species on the threatened and endangered list.

“If it’s just a few people doing it, it probably won’t have a lot of impact (on turtle populations),” Texas Parks & Wildlife biologist Joan Glass said. “If it’s a lot of people doing it, then it could have a major impact.” Popplewell hopes his business, run similar to a co-op, falls in the latter category. “What we’re after is an army of turtle harvesters,” he said at Wednesday night’s meeting. “I’ve got to train the army, I’ve got to equip the army and I’ve got to motivate the army.”

More habitat or less? Popplewell disputes the claim his turtle-harvesting business, and others like it, will harm turtle populations. He says turtles are more prevalent than they’ve ever been in Texas and that turtle habitats have increased in Texas by more than 4,000 percent in the last 100 years. Glass dismisses both assertions, saying overall numbers of turtles are dropping, at least in part because their natural habitats are being destroyed. “He’s saying that because of lakes and stock tanks that people have built since the ’50s,” Glass said. “Yes, there’s more little places like that, but there’s a lot less flow in our rivers. We have a lot less wetlands so, regarding actual habitat trade-offs, I’d say there’s actually less.” Renowned biologist Fred Gehlbach, a former Baylor University research professor who keeps records on local bird, snake and lizard populations wiped out in McLennan County over the last several decades, has even stronger reactions to Popplewell’s claims of vast turtle habitats across Texas.

“I would use the word ‘bogus,’ ” Gehlbach told the *Tribune-Herald*. “I think that’s a good word for that kind of claim.” Glass says the turtles Popplewell is focusing on — common snapping turtles and red-eared sliders — are populous at the moment, but their numbers could rapidly fall if they’re being trapped in large quantities. She also says trappers must be careful not to trap and keep threatened species such as the alligator snapping turtle, a craggy, oversized cousin of the common snapper. Popplewell acknowledged as much Wednesday, telling prospective trappers they must turn them loose if they’re caught. Federal guidelines allow for up to a \$100,000 fine and a year in prison for trapping species on the endangered species list. Glass said state law usually mimics federal restrictions. The alligator snapper is not on the federal endangered list but is listed as a threatened species in Texas.

‘Cautionary thing’ Both Glass and Gehlbach voice concern about possible consequences to Texas ecosystems where turtles are trapped in large quantities. Glass says the red-eared slider is known to clear vegetation from lake beds and ponds.

“It’s a cautionary thing,” Gehlbach said. “Why go out and start hauling in turtles without any knowledge of the consequences to the environment?” None of which influences Popplewell, who also harvests certain species of snake and is famous for his Brazos River Rattlesnake Ranch along Interstate 20 near Weatherford. He calls the business of turtling a “win-win-win-win situation.” “The farmers want the turtles out of their tanks, you make money, I make money and the state of Texas benefits, too,” Popplewell said.

Prospective trappers at the meeting spoke little of their motives for corralling turtles beyond the fact it might net them extra cash. Meanwhile, two snappers were permitted to crawl about the meeting room, drawing anxious looks from Bayou Bob's army in waiting. twoods@wacotrib.com 757-5721 **Red-eared slider:** So-named because of the red stripe on each side of the head. Spends most of its life in the water but can occasionally be spotted on rocks and logs sunning itself. It doesn't produce saliva, so anything it eats must be consumed underwater. **Common snapping turtle:** Rugged, muscular-looking and somewhat temperamental, it can weigh up to 75 pounds. Can be dangerous to handle, especially with its snapping jaws, highly flexible neck and spiky tail. Spends most of its time beneath the water. **Alligator snapping turtle:** Largest freshwater turtle in North America. Also ill-tempered, this turtle has an appendage on its tongue that resembles a worm which it uses to lure fish within snapping distance.

EXHIBIT E

ONLINE EXPLOITATION OF FRESHWATER TURTLES FOR
THE INTERNATIONAL PET TRADE

1. Commercial reptile website solicitation showing Asian demand of “huge numbers” of freshwater turtles from the United States.

snake.com
Online Since 1997®



- Businesses
- Classifieds
- Forums
- Photos
- Chat
- News
- Video/Podcast
- Features
- Mail Lists
- Clubs
- Books



East Texas Herpetological Society

Bi-Monthly Meetings at the Houston Zoo, Newsletters, Field Trips, our Annual Herpetological Conference & Expo and MORE!

www.eths.org

- Reptile & Amphibians
- Insects
- Birds
- Cats
- Dogs
- Exotics
- Horses
- Aquaria
- Ponds
- PetHobbyist
- PetPress
- PetSupport
- RescueNetwork
- My Account**

[club.kingsnake](#) - [club.kingsnake on myspace](#) - [advertising rates](#) - [site news](#) - [help](#) -

for a pet? Try a rescue first!

to add your rescue

Reptarium Screen Cages IN STOCK & ON SALE starting at \$19.99 @ LLLRe
XL and XXL Rats On Sale Now At RODENTPRO.COM

[Home](#) | [Recently Posted](#) | [Post a Classified](#) | [My Ads](#) | [Help](#) | [Report Abuse](#)

Home :: Turtles

Importer form Taiwan(SNAPPERS, SOFT SHELL)

Send this ad to a friend! [Click Here!](#)

Posted by Kerwin Chen ([Contact Me!](#))
April 16, 2007 at 04:08:11

Registered PetHobbyist
User since 2006-10-22
[View All Ads \(11\)](#) | [This](#)

2. A Florida dealer's online solicitation of wild caught common snapping turtle, Pearl river map turtles (A species limited and protected to Mississippi), adult female Texas map turtles (a species limited and protected in Texas).



- Businesses
- Classifieds
- Forums
- Photos
- Chat
- News
- Video
- Podcast
- Features
- Events
- Clubs
- Bookstore



- Reptile & Amphibians
- Insects
- Birds
- Cats
- Dogs
- Exotics
- Horses
- Aquaria
- Ponds
- PetHobbyist
- PetPress
- PetSupport
- RescueNetwork
- My Account**

[reptile law resource center](#) - [kingsnake store](#) - [club.kingsnake](#) - [advertising rates](#) - [site news](#) - [help](#)

for a pet? Try a rescue first!

to add your rescue

Ball Pythons Only \$29.99 & All Geckos 20% Off! at LLLReptile & Supply
The Internet's Largest Selection of Reptile Cages is at Big Apple Pet Supp
8-9 PM ET: Cold Blooded Chat - 10-11 PM ET: Fish & Pond Chat 10-11 PM Easter

Home :: Turtles

Turtle List (a few new additions)

Send this ad to a friend! [Click Here!](#)



What's This?

Posted by **Martins World Exotics** (Contact Me!)
February 19, 2008 at 12:41:02

Registered PetHobbyist
User since 2007-01-15
[View All Ads \(5\)](#) | [This Category Only \(2\)](#)

[Click to view fullsize](#)



Here is a list of what we have available. All are healthy and feeding.

4"-5" cumberland sliders- \$20/each-5/\$15 each
-10/\$12each

2007 Albino RES -\$200/each

2007 RES irregular scutes=\$145

Pastel RES - \$75/each

Juvi European ponds - \$275/each

Asian Boxes- \$100/each (sold)

1.2 Adult Spotted turtle (proven)- \$750/trio

Adult male florida snappers (HUGE !!!!!)

\$75/each

Adult Female florida snappers \$75/each

SOLD

Adult peninsular cooters - \$30/each

Adult florida redbellies - \$30/ each

Adult female florida softshells - \$50/each

2007 Giant Black Woods- \$55/each

CB Baby Pearl River Maps- \$45/each

CB Pearl River pairs (females 6" +)-\$250/pair

CB Pearl river Maps 2"-4"- \$90/each

2005 NA Woods- \$250/each SOLD

2006 spotted turtles- \$175/each

Adult Ornate box turtles- \$150/pr

Kwang tung river turtles- \$70/each

three stripe muds- \$30/each (sold)

CB Tripocatus (4-6")- \$150/each

baby chinese golden threads- \$40/each

Juvi Ornate box turtles- \$75/ each

Baby Reeves turtles-\$40/each

Baby Common snappers-\$20/each

Juvi Vietnamese pond turtles-\$90/each
baby western paints-\$20/each
baby river cooters- \$20/each
baby Heiroglyphic river cooters-\$20/each (few left)
Yellow mud turtles - \$ 40 each
Adult Breeder Razorback musks -\$125/pair
4" florida snapper- \$30
adult female texas maps-\$75/each
Juvenile Yellow Pond Turtles-\$150/ea (sold)

Shipping is extra and is done via UPS next day air. We accept money orders, visa, mastercard, and paypal. Trades considered. Contact Greg at 561-756-0345. Thank You. List is updated daily so keep checking back.

URL: <http://www.martinsworldexotics.com>

<< Previous Next >>

[Employment](#) | [Volunteer](#) | [Advertising Rates](#) | [Contact](#) | [Support](#)



kingsnake.com® is a registered trademark of OnlineHobbyist.com, Inc.© 1997-2008

NEW!!! Other OnlineHobbyist.com Inc. sites...
[ComputerHobbyist](#) | [CameraHobbyist](#) | [GuitarHobbyist](#) | [TerrariaHobbyist](#) | [FarmHobbyist](#) | [CraftHobbyist](#) | [WineHobbyist](#) | [BeerHobbyist](#) | [GolfHobbyist](#)
[KitHobbyist](#) | [RCHobbyist](#) | [RailroadHobbyist](#) | [DiecastHobbyist](#) | [CoinHobbyist](#) | [StampHobbyist](#) | [PatchHobbyist](#)

3. ONLINE SOLICITATIONS OF BARBOURS MAP TURTLES (*Graptemys barbouri*), A PROTECTED SPECIES IN GEORGIA, ADVERTISING HATCHLINGS AS CAPTIVE BRED FOR \$ 75 EACH

<http://market.kingsnake.com/detail.php?cat=39&de=568571>

ake.com
Online Since 1997®

Businesses
Classifieds
Forums
Photos
Chat
News
Video

Podcast
Features
Events
Clubs
Bookstore



ile & Amphibians

cts

s

s

ics

es

aria

ls

obbyist

ress

upport

ueNetwork

ccount

reptile law resource center - kingsnake store - club.kingsnake - advertising rates - site news - h

ng for a pet? Try a rescue

ere to add your rescue

The Internet's Largest Selection of Reptile Cages is at Big Apple Pet Sup

HOT SALE at MiceDirect! Peach Fuzzies Only \$.12 Cents Each!

8-9 PM ET: Cold Blooded Chat - 10-11 PM ET: Fish & Pond Chat 10-11 PM Easter

[Home](#) | [Recently Posted](#) | [Post a Classified](#) | [My Ads](#) | [Register to Post](#) |
[Help](#) | [Rules/TOS](#) | [Report Abuse](#)

Home :: Turtles

2.5 inch Barbour's Maps

Send this ad to a friend! [Click Here!](#)

Posted by Excell (Contact Me!)
February 17, 2008 at 18:37:25

Registered PetHobbyist
User since 2003-10-09
[View All Ads \(4\)](#) | [This Category Only \(4\)](#)

[Click to view fullsize](#)



2.5 inch Barbour's Maps \$75 each + Shipping

All products not intended for sale or use by minors; purchases must be made by an adult 18 years or older.

Turtles measuring under 4" are available for export, educational, and research purposes

Email info@excellexotics.com

<< Previous Next >>

[Employment](#) | [Volunteer](#) | [Advertising Rates](#) | [Contact](#) | [Support](#)



kingsnake.com® is a registered trademark of OnlineHobbyist.com, Inc.© 1997-2008

NEW!!! Other OnlineHobbyist.com Inc. sites...

[ComputerHobbyist](#) | [CameraHobbyist](#) | [GuitarHobbyist](#) | [TerrariaHobbyist](#) | [FarmHobbyist](#) | [CraftHobbyist](#) | [WineHobbyist](#) | [BeerHobbyist](#) | [GolfHobbyist](#)
[KitHobbyist](#) | [RCHobbyist](#) | [RailroadHobbyist](#) | [DiecastHobbyist](#) | [CoinHobbyist](#) | [StampHobbyist](#) | [PatchHobbyist](#)

4. ONLINE SOLICITATIONS OF BLACK KNOBBED MAP TURTLES (*Graptemys nigrinoda*), A PROTECTED SPECIES IN ALAMABAMA \$169 each

<http://market.kingsnake.com/detail.php?cat=39&de=574117>
February 12 2008



- [Businesses](#)
- [Classifieds](#)
- [Forums](#)
- [Photos](#)
- [Chat](#)
- [News](#)
- [Video](#)
- [Podcast](#)
- [Features](#)
- [Events](#)
- [Clubs](#)
- [Bookstore](#)

MY SNAKE IS BIGGER
KINGSNAKE SHIRTS, MUGS, HATS, PULLOVERS & MORE **CLICK**

ng for a pet? Try a rescue

ere to add your rescue

Ball Pythons Only \$29.99 & All Geckos 20% Off! at LLLReptile & Supply
The Internet's Largest Selection of Reptile Cages is at Big Apple Pet Sup
8-9 PM ET: Cold Blooded Chat - 10-11 PM ET: Fish & Pond Chat 10-11 PM Easter

[Home](#) | [Recently Posted](#) | [Post a Classified](#) | [My Ads](#) | [Register to Post](#) |
[Help](#) | [Rules/TOS](#) | [Report Abuse](#)

Home :: Turtles

Black Knob Saw Backs: Well Started

Send this ad to a friend! [Click Here!](#)



[What's This?](#)

Posted by  (Contact Me!)
February 12, 2008 at 23:15:56

Registered PetHobbyist
User since 2004-07-18
[View All Ads \(15\)](#) | [This Category Only \(11\)](#)





Click Photo
to Zoom

Black-knobbed Map Turtle (*Graptemys nigrinoda*)

TYPE: Map Turtles

BASIC INFORMATION:

One of the narrow headed maps, Black-knobs (also called Black-knobbed saw ba are excellent swimmers, and spend a lot of time foraging the bottom and searching underwater objects for food. They do very well in set ups with lots of water circulation, often swimming into the current for hours on end. Black-knobs love insects, they will take pellets and some water plants or even Romaine lettuce. They love to bask, and dive back in once startled, as they are very cautious on the surface but once underwater they seem oblivious to observers, and put on an active display making them a fine tank turtle.

This species has been on the losing end of interaction with humans for some time now, and it's future in the wild is in jeopardy. Only a handful of breeders have had success with Black knobs, so availability is very limited.

CARE SHEET: [VIEW CARE SHEET](#)

LEVEL: Intermediate [View our site for more information](#)

TERMS & CONDITIONS: [View](#)

MORE TORTOISES: To view any of our 70+ varieties of turtles and tortoises [Click Here](#)



[Back to the Top](#)



[Back to the Top](#)

TERMS & CONDITIONS:

- The Turtle source ships Turtles and Tortoises during the week Monday-Wednesday with the exception of holidays.
- The Turtle Source ships UPS Next Day Air overnight for delivery by 10:30 AM the following day if available in your area. Freight costs range from \$34.94 - \$64.95 depending upon turtle/tortoise size and quantity ordered. No charge for boxes or packing materials.
- The buyer must be present to receive the package on the first delivery attempt or all guarantees are void.
- Live, healthy arrival is only guaranteed when shipping temperatures at both ends are between 30-90F. Please notify us of any temperature issues.
- We are not responsible for carrier delays or mishandling resulting in DOA* animals.
- Unless otherwise stated, we offer a 7 day health guarantee on our captive bred animals only, provided the above criteria are met and care sheet instructions are followed. We must be notified during this time period of any problems or concerns for this guarantee to take effect.
- Wild caught animals (Some larger pond turtles or adult tortoises) have a live arrival guarantee only.
- In order for our guarantee to take effect, all claims must be made within our 7 day health guarantee and any deceased animals must be returned to us for inspection.

- We cannot be held responsible for shipping charges incurred for upholding our guarantee, they are the responsibility of your shipping carrier. We do not provide credits or refunds on shipping for replacement animals.
- If the animal is DOA* the customer must notify The Turtle Source of the DOA* within an hour of receiving the animal. A receipt time UPS provides online of the delivery. An email with a photo attached of the actual animal must be received within 24 hours of receipt, null and void.
- We reserve the right to refuse sale to any buyer, for any reason. Sorry, no sales to minors. Proof of age may be required at the time of purchase.
- Photos and requests: The Turtles or Tortoises pictured on our web site may or may not be the actual animal available. The health and quality of the animals we ship. Sorry, but it is not always practical to provide photos of every individual animal (due to space and the health and quality of the animals we ship. Sorry, but it is not always practical to provide photos of every individual animal (due to space apply). Photos, descriptions and care sheets posted on our web site are the exclusive property of Turtle Source, and may not be reproduced without specific, written permission.
- In accordance with FDA regulations, turtles and tortoises under 4 inches listed on our web site are offered expressly for educational purposes only. They are not sold for use as pets. Teachers may request a discount for your school if available.
- Contact: **Email** is the best way to reach us. If you have specific questions/requests, feel free to ask; we will respond accordingly. For those who type slowly (like me) we can be reached Monday - Friday from 9:30 AM - 7:00 PM, and on Saturdays from 10:00 AM - 4:00 PM (239) 220 - 4280. Remember, our care sheets answer most commonly asked husbandry questions.
- Temperature Sexing I have noticed some temperature sexed turtles and tortoises being offered. I know some breeders who sex that way. For the most part, commonly produced species are not incubated that way - some species can not even be incubated that way. require considerable age to determine gender. We offer very few temperature sexed species - and these come from very rare breeders. If I can sex an animal I will. If I can make a good guess, I will tell you just that; and if I can't determine gender (usually by looking at the animal's behavior enough) I will tell you that too.
- We can not do trades. If you want to sell turtles or tortoises simply offer them to us.
- Please be aware of your own local wildlife laws and regulations. No shipments will be knowingly sent in violation of any laws. We will even ask.
- Sorry, we do not export, but we do work with several experienced exporters who may purchase from us for export (dealer's license required).
- Please note that your failure to read our terms and conditions, whether intentional or accidental will under no circumstances be considered altered or void.

*DOA = Dead on Arrival

[Back to the Top](#)

<< [Previous](#) [Next](#) >>

[Employment](#) | [Volunteer](#) | [Advertising Rates](#) | [Contact](#) | [Support](#)



kingsnake.com® is a registered trademark of OnlineHobbyist.com, Inc.© 1997-2008

NEW!!! [Other OnlineHobbyist.com Inc. sites...](#)

[ComputerHobbyist](#) | [CameraHobbyist](#) | [GuitarHobbyist](#) | [TerrariaHobbyist](#) | [FarmHobbyist](#) | [CraftHobbyist](#) | [WineHobbyist](#) | [BeerHobbyist](#) | [GolfHobbyist](#)
[KitHobbyist](#) | [RCHobbyist](#) | [RailroadHobbyist](#) | [DiecastHobbyist](#) | [CoinHobbyist](#) | [StampHobbyist](#) | [PatchHobbyist](#) | [CardHobbyist](#) | [StereoHobbyist](#)

**5. ONLINE SOLICITATION OF FLORIDA CHICKEN
TURTLES (*Deirochelys reticularia chrysea*) for \$60 each.
Feb 15 2008.**



- Businesses
- Classifieds
- Forums
- Photos
- Chat
- News
- Video
- Podcast
- Features
- Events
- Clubs
- Bookstore



Reptile & Amphibians

- Insects
- Birds
- Cats
- Dogs
- Exotics
- Horses
- Aquaria
- Ponds
- PetHobbyist
- PetPress
- PetSupport
- RescueNetwork
- My Account**

[reptile law resource center](#) - [kingsnake store](#) - [club.kingsnake](#) - [advertising rates](#) - [site news](#) - [help](#)

Looking for a pet? Try a rescue first!

Click here to add your rescue

The Internet's Largest Selection of Reptile Cages is at Big Apple Pet Supply

HOT SALE at MiceDirect! Peach Fuzzies Only \$.12 Cents Each!

8-9 PM ET: Cold Blooded Chat - 10-11 PM ET: Fish & Pond Chat 10-11 PM Eastern

[Home](#) | [Recently Posted](#) | [Post a Classified](#) | [My Ads](#) | [Register to Post](#) | [Help](#) | [Rules/TOS](#) | [Report Abuse](#)

Home :: [Turtles](#)

FLORIDA CHICKEN TURTLES -
DEIROCHELYS RETICULARIA CHRYSSEA

Send this ad to a friend! [Click Here!](#)

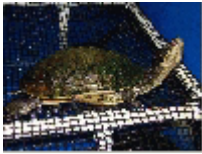


[What's This?](#)

Posted by  (Contact Me!)
February 15, 2008 at 06:00:00

Registered PetHobbyist
User since 2003-04-29
View All Ads (33) | This
Category Only (22)

Click to view
fullsize



EMAIL US FOR THE LATEST AVAILABILITY LIST.

Florida Chicken Turtles (*Deirochelys reticularia chrysea*) CB 2" - 5" and LTC adults 6" - 8"
Eating Mazuri Turtle Diet, greens, duck weed
etc. \$60 each, 3@\$55 each, 6@\$50 each

Price does not include shipping. For exact shipping costs, please include zip code or local airport plus species and quantities being purchased.

We accept Visa, MasterCard, American Express, Discover, Paypal and Postal Money Orders.

We are always interested in your surplus for trade or purchase. Let us know what you have available.

Live arrival guaranteed on all reptiles except for carrier delays and mishandling plus temps are between 45F and 90F during transit. All are shipped in insulated boxes with heat packs at no extra charge or appropriately to fit the welfare of the animals due to temperature.

If you have any questions, please feel free to email us at: sales@turtlesandtortoises.com or call 727-534-3004

<< Previous Next >>

[Employment](#) | [Volunteer](#) | [Advertising Rates](#) | [Contact](#) | [Support](#)



kingsnake.com® is a
registered trademark of
OnlineHobbyist.com, Inc.©
1997-2008

NEW!!! Other OnlineHobbyist.com Inc. sites...

**6. ONLINE SOLICITATIONS OF CAGLES MAP
TURTLES (*Graptemys caglei*) A PROTECTED
SPECIES IN TEXAS at \$125 each**

Cagle's Map Turtles

U.S.A.

Posted by tortman ([Contact Me!](#)) on August 08, 2005 at 21:54:13 Registered PetHobbyist
User since 2005-06-28 [View Ads \(2\)](#) | [This Category Only \(1\)](#) Send this ad to a friend! [Click Here!](#)

[Click on thumbnails to view fullsize in a new window](#)

**3.1 *Graptemys caglei* for sale, Female is 4 and 3/4 long while
males are 3 3/4 inches long.**

\$125.00 each.



7. ONLINE SOLICITATIONS OF TEXAS MAP TURTLES (*Graptemys versa*) A PROTECTED SPECIES IN TEXAS



Texas Map Turtles (Adult Breeders)

Send this ad to a friend! [Click Here!](#)

Posted by ([Contact Me!](#))
February 21, 2007 at 22:26:19

Registered PetHobbyist User since 2007-01-15
[View All Ads \(10\)](#) | [This Category Only \(2\)](#)

Click to
view
fullsize

We have 10.8 adult texas maps for sale. We are asking \$100 per pair or all 18 for \$750 plus shipping. We accept money orders and paypal. Contact Greg at 561-756-0345. Thank You.

10.8 Adult texas Maps- \$100/pr all 18 for \$750



[Home](#) :: [Turtles](#)

ADULT TEXAS MAP TURTLE PAIRS! *PICS*

Send this ad to a friend! [Click Here!](#)

Posted by ([Contact Me!](#))
February 16, 2007 at 15:54:16

Registered PetHobbyist User since 2004-09-29
[View All Ads \(29\)](#) | [This Category Only \(13\)](#)

Click to
view
fullsize

We have some NICE, LTC adult TX Map pairs available. (G.versa). All are feeding on trout chow and some greens. This map species stays quite calm and small(manageable). You see babies available for \$25-30.00ea online. Get adults and produce your own babies this spring! **\$100.00/pr \$375.00 for 5 pairs \$600.00 for 10 pairs** Serious inquiries, please email. Prices do not include shipping and sorry, no trades at this time

