BEFORE THE TEXAS DEPARTMENT OF STATE HEALTH SERVICES, GOVERNOR OF TEXAS, AND THE TEXAS PARKS AND WILDLIFE DEPARTMENT

Cagle's map turtle (*Graptemys caglei*) – photo by Darrell Senneke, World Chelonian Trust

EMERGENCY RULEMAKING REQUEST TO REPEAL TEXAS'S TURTLE COLLECTION LAW

BASED ON AN IMMINENT PUBLIC HEALTH RISK THROUGH THE CONSUMPTION OF CONTAMINATED TURTLES DERIVING FROM TEXAS

MARCH 27, 2008

The Center for Biological Diversity, Lone Star Chapter of the Sierra Club, Pineywoods Group of the Sierra Club, and the Center for Food Safety, nonprofit organizations, come forth by and through their attorneys Christopher Hunter Jones, Kimberly Pinkerton and Rob Skeels, to the Governor of the State of Texas, the Honorable Texas Parks and Wildlife Commission, and the Commissioner of the Texas Department of State Health Services and submit this administratively complete petition (as defined by 31 Texas Administrative Code § 51.2(a)-(d) (2008)) requesting the Commission to immediately repeal harvest of all freshwater turtles, due to risk of peril to public health.

Petitioners request that all freshwater turtles be removed from 31 Texas Administrative Code § 65.331(d)(2008) and hereinafter the Commission prohibit their recreational and commercial harvest for consumption, sales and export. Texas law currently allows an unlimited number of freshwater turtles to be harvested from private waters and sold as food. Texas law also allows the recreational or personal take of freshwater turtles as food from public waters, even those designated with fish consumption advisories and bans (31 Texas Administrative Code § 65.327(b)(4)(2008)). Under this regime, there is no scientifically measurable way to distinguish the origin (public versus private waters) in Texas of turtles that are sold as food. Consumption of turtles known to be contaminated with toxins and pollutants poses a significant and imminent public health risk.

The Center for Biological Diversity is a nonprofit, science-based environmental advocacy organization that works to protect endangered species and wild places throughout the world through science, policy, education, citizen activism and environmental law.

Center for Biological Diversity
1095 Market Street, Suite 511
San Francisco, CA 94103
Contact: Jeff Miller
Phone: (415) 436-9682 x303
E-mail: jmiller@biologicaldiversity.org

The Lone Star Chapter of the Sierra Club is the Texas state chapter of the Sierra Club, a national environmental advocacy organization whose mission is to enjoy, explore, and protect the planet. Established in 1965, the Chapter represents approximately 23,000 members of the Sierra Club in Texas, and it has been active in many wildlife protection and public health issues over the last four decades.

Lone Star Chapter of the Sierra Club
P.O. Box 1931
Austin, TX 78767
Contact: Ken Kramer
Phone: (512) 476-6962
E-mail: ken.kramer@sierraclub.org

The Pineywoods Group of the Sierra Club mission is to build ecological awareness through education, community involvement, and activism, and to preserve our planet for future generations.

Pineywoods Group of the Sierra Club
Contact: Pam Blackledge
Phone: (936) 559-1961
E-mail: pblackledge@earthlink.net

The Center for Food Safety is a non-profit public interest and environmental advocacy membership organization that works to challenge harmful food production technologies and promote sustainable alternatives.

Center for Food Safety
660 Pennsylvania Ave., SE, Suite 302
Washington, DC 20003
Contact: Joe Mendelson
Phone: (202) 547-9359
E-mail: joemend@icta.org

I. INTRODUCTION

Commercial collection of wild turtles in Texas is a food safety challenge unprecedented in the history of the Texas Department of State Health Services (TDSHS) and the Texas Parks and Wildlife Department (TPWD). These agencies currently allow unlimited commercial harvest of turtles from "private waters" in Texas with little to no regulatory oversight, despite the fact that many of these turtles are still illegally harvested from public streams that are presently subject to fish advisories and bans that precaution against and prohibit human consumption. Both agencies allow noncommercial recreational or personal take of turtles for human consumption from these streams.

The TDSHS and TPWD have a duty to protect the public from unsafe turtle meat products originating in Texas under the Texas Food Drug and Cosmetic Act (6 Health and Safety Code 8431.002((16)(a)(2008)) and the Federal Food Drug and Cosmetic Act (21 U.S.C § 301 (2007)). The TPWD has jurisdiction to regulate the harvest of turtles from the wild. (Texas Parks and Wildlife Code § 1.011 (d) (2007)). A substantial and imminent public health risk exists in Texas since commercial turtle dealers are purchasing turtles harvested from Texas waters and streams where fish advisories are in place by TDSHS and TPWD, and these turtles are potentially contaminated with PCBs, pesticides and heavy metals.

The TPWD requires commercial collectors and dealers of turtles for food to obtain a non-game collector's permit ($18 resident, $60 nonresident) or a non-game dealer's permit ($60 resident, $240 nonresident) to harvest turtles from private waters in Texas. (31 Texas Administrative Code § 325-332(2008)).

Over the last decade biologists have cautioned state wildlife agencies that freshwater turtles in North America are being increasingly targeted to supply food markets in Asia due to depletion of wild populations of Asian turtle species (Behler 1997). With more than 1.3 billion people, China is the largest and fastest growing population in the world (USDOS 2007). China has long commercially pursued their endemic turtles as food and Traditional Chinese Medicine, driving most populations to depleted levels and even extinction in the wild. Turtle meat, shell and body parts are sold at wildlife markets and restaurants throughout Asia, and turtles are an ancient, prized and expensive delicacy served at Asian restaurants and at home (S. Haitao, pers. comm. 2007). Growing Asian communities in the United States are also driving demand of native species for turtle meat and their body parts. Asian seafood markets in Dallas have been supplied with wild caught softshell turtles through dealers licensed by the TPWD who have harvested turtles from public and private waters in Texas (T. Carbone pers. comm. 2007). In May of 2007 a gastrointerologist at Southwestern Medical Center advised the TPWD to close harvest of turtles for food from both public and private waters due to their propensity to bioaccumulate aquatic contaminants. (Maddrey 2007).

In October of 2007 the TPWD published a final rule prohibiting commercial harvest of turtles from public waters, but continuing to allow unlimited commercial harvest of three species from private waters - common snapping turtle, five species of softshell turtle, and

the red eared slider turtle - even though scientific evidence suggests that private waters produce turtles contaminated with heavy metals. Previously, the TPWD had allowed unlimited commercial harvest of virtually all Texas freshwater turtle species from both private and public waters.

The department proposed the new rule in April of 2007 after receiving an emergency rule request to prohibit commercial harvest. The new rule was based on evidence held by the TPWD that dealers have been harvesting potentially contaminated turtles for food from streams in Texas that are imposed with fish consumption bans and advisories; and because turtles are longer living higher trophic animals than fish, and bioaccumulate greater concentrations of aquatic contaminants. TPWD attorneys responded publicly that the agency only has regulatory authority if a turtle population is depleted in the wild, and does not have jurisdiction to legislate for public health, claiming this is the responsibility of the TDSHS. In the language of the proposed and final rules, the TPWD did not make any reference to a public health threat or the fact that turtles can bioaccumulate aquatic contaminants.

At the May 24th 2007 TPWD Commissioner's meeting, several faculty toxicologists affiliated with the Texas university system and a zoo veterinarian signed up to speak before the Commission, to become part of the administrative record and submit evidence that turtles bioaccumulate aquatic contaminants, and that consumption of turtles in Texas is ill-advised based on bioaccumulation studies of turtles, including snapping turtles in the Trinity River National Wildlife Refuge. Unfortunately, these experts were misled about the jurisdiction of the TPWD and were induced under false pretenses not to speak at the meeting by a party who represents commercial turtle dealers.[1]

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[1] Before the Commission Chairman called the Texas University toxicologists to speak, a state university geneticist approached each separately outside the Commission chambers and advised them not to make any reference to turtles bioaccumulating aquatic contaminants from public or private waters, because the TPWD did not have jurisdiction to regulate for public health. (M. Forstner pers. comm. and C. Jones pers. obs. 2007).

In March of 2007 this state university geneticist submitted a grant proposal to the TPWD non-game division as the principal investigator to study bioaccumulation of aquatic contaminants and salmonella in wild turtles in Texas: *Forstner, M.R.J and R. Hudson, Freshwater turtle trends in the Rio Grande, Rio Bravo and Brazos basin evaluating abundance and bioaccumulation. Approved for funding April 14, 2007/Sept 07-Dec 09. TPWD.* The geneticist (who is not a toxicologist) included the name of a toxicologist in the proposal to analyze the wild turtle tissue samples, and appointed himself in charge of collecting turtles from the field for the study. The TPWD non-game division awarded the grant.

Significantly, the principal investigator of the TPWD sponsored study has admitted his long term "collaboration" with and "support" from for-profit turtle dealers and exporters who commercially harvest wild turtles in the south, including Texas. The geneticist has even admitted being employed to defend an international turtle meat dealer who was prosecuted in federal court for violating Alabama wildlife laws, the federal Endangered Species Act and the Lacey Act US v. Guthrie 50 F3d 936(11TH Cir. 1995). (M. Forstner pers. comm. 2007; Forstner, 2004). Any role of this subject in the collection of data from wild turtles for bioaccumulation analyses creates a conflict of interest in producing legitimate non biased objective data to serve for the public health of Texas, based on the subject's collaboration with private interests who have a financial stake in the outcome of a bioaccumulation study, and his actions at the May 24 Commission meeting. The subject should be completely severed from the study otherwise it should be disqualified from state and federal funding for the merit and mere appearance of a conflict of interest.

II. REQUEST FOR REPEAL OF THE COMMERCIAL TURTLE HARVEST RULE AND STANDARD TO ENACT AN EMERGENCY RULE

The Texas Department of State Health Services and the Texas Parks and Wildlife Department have the authority to adopt emergency rules when imminent peril exists to the public health, safety, or welfare, or a requirement of state law:

> (a) A state agency may adopt an emergency rule without prior notice or hearing, or with an abbreviated notice and a hearing that it finds practicable, if the agency:
>
> (1) finds that an imminent peril to the public health, safety or welfare, or a requirement of state or federal law, requires adoption of a rule on fewer than 30 days' notice; and
>
> (2) states in writing the reasons for its finding under subdivision (1).

Citing Texas Administrative Code Emergency Rulemaking. (10 Texas Administrative Code § 2001.034 (2008)). The Commissioner of the TDSHS may issue an emergency order if she or a designee determines that food poses a threat to human life or health." (Texas Health and Safety Code § 431.045(2008)). Any person may petition an administratively complete petition for an emergency rulemaking (as defined by 31 Texas Administrative Code § 51.2(a)-(d) (2008)).

The Center for Biological Diversity Lone Star Chapter of the Sierra Club, Pineywoods Group of the Sierra Club, and the Center for Food Safety hereby submit this document to serve as an administratively complete petition and respectfully request that the TDSHS and TPWD immediately issue an emergency rule in accordance with 10 Texas Administrative Code § 2001.034 (2008), to immediately repeal harvest of all freshwater turtles. This petition provides evidence of imminent peril to the public health safety and welfare of citizens of Texas, the United States and other countries by allowing commercial dealers to sell for human consumption potentially contaminated turtles taken from private waters in Texas that are contaminated with carcinogenic aquatic contaminants and recreationally from streams that are imposed with fish consumption advisories by the TDSHS. The TDSHS and TPWD have concurrent jurisdiction to protect the public from unsafe turtle meat products originating in Texas under the Federal Food Drug and Cosmetic Act (21 U.S.C. § 301 (2007)) and the Texas Food Drug and Cosmetic Act (Texas Health and Safety Code § 8431.002(16)(a)(2008)).

III. NECESSITY FOR AN EMERGENCY RULE

An emergency rule enjoining commercial harvest and sale of wild Texas turtles is necessary since Texas's unlimited collection law from private waters imperils public health: turtle collectors and buyers are selling potentially contaminated turtles harvested from polluted waters and recreationally as food from streams where fish advisories are in place by the Texas Department of State Health Services.

1. Turtle bioaccumulation studies demonstrate that eating turtles contaminated with PCBs and heavy metals is more dangerous to human health than consuming contaminated fish

Meyers-Schöne and Walton (1994) examined dozens of scientific studies of pesticide, PCB and metal concentrations in freshwater turtles from the 1960s through the 1980s, including numerous studies of turtles from Florida, Georgia and Texas. Over a dozen studies found significant concentrations of numerous pesticides in freshwater turtles in states throughout the south, including aldrin, chlordane, DDT, dieldrin, endrin, mirex, nonachlor, and toxaphene (Meyers-Schöne and Walton 1994). Studies found bioconcentration of mercury and other metals such as aluminum, barium, cadmium, chromium, cobalt, copper, iron, lead, molybdenum, nickel, strontium, and zinc in turtles in Florida, Georgia and other southern states (Meyers-Schöne and Walton 1994).

A string of recent published scientific evidence demonstrates that consumption of turtle meat, their shell, organs and body parts can be harmful to humans. *See Exhibit A. Bioaccumulation studies of freshwater turtles.* Toxicologists caution that human consumption of turtle meat may be far more dangerous to human health than fish, since turtles are longer lived organisms and higher trophic animals that bioaccumulate considerably greater amounts of aquatic contaminants (W. Roosenburg, pers. comm. 2007). Researchers have found enough PCBs in a common snapping turtle to kill a large mammal (W. Roosenburg, pers. comm. 2007). Studies of snapping turtles in the Trinity River in Liberty county Texas revealed "harmful levels of environmental toxicants" to humans, primarily methyl mercury (Mitchell, in press). Toxicologists advise that eating turtles contaminated with PCBs, pesticides and heavy metals poses a greater risk to human health than consuming contaminated finfish (Mitchell, in press).

Turtles are long lived organisms; some species, including the alligator snapping turtle (*Macrochelys temminckii*), are known to live more than 80 years. (Pritchard 1989). Turtles, as apex trophic animals, will bioaccumulate toxins from contaminated prey (Kennish and Ruppel 1998). Because of their longevity, exposure time to environments with aquatic contaminants is longer, which causes turtles to retain greater amounts of bioaccumulation compared to shorter lived lower trophic animals like finfish (Kennish and Ruppel 1998). Snapping turtles and softshell turtles are likely to have greater levels of aquatic contaminants through burrowing and submerging themselves in the contaminated sediment, therefore their pathway of exposure is greater (W. Roosenburg, pers. comm. 2007).

PCBs are highly stable, lipophilic chemicals and because of these properties tend to bioaccumulate in higher trophic level consumers including aquatic turtles (Safe 1994). A large body of literature has focused on the occurrence of PCBs in mammals and birds, but comparatively few studies have analyzed tissue contaminant levels in wild-caught reptiles (Portelli and Bishop 2000). Diet of freshwater turtles in Florida consists of mussels, invertebrates, crayfish and fish (Ernst et. al. 1994). Mussels are filter feeders or opportunistic omnivores with little ability to breakdown PCBs. Large, older, reproductive female turtles show a high contaminant burden that can transfer to their eggs. Because of

a longer life span, turtles are a more relevant indicator of sublethal stressors than certain fish. (Portelli and Bishop 2000).

2. Human toxicological effects of methyl mercury

Methyl mercury is the most important form of mercury in terms of toxicity and health effects from environmental exposure (Trasande et al. 2005). Sources of environmental contamination in the past have been coal burning, municipal incinerators, loss in water effluent from chlor-alkali plants, refining of petroleum products, mining, and smelting (Trasande et al. 2005). Clinical manifestations of mercury poisoning include paresthesia (tingling of skin), ataxia (incoordination), dysanthria (difficulty with words), and visual and hearing impairment, in that order. Methyl mercury easily crosses cell membranes and preferentially binds in the nervous system and brain (Trasande et al. 2005). Since there is no placental barrier to mercury, the fetus nervous system can be harmed by prenatal exposure. Methyl mercury inhibits the growth of the fetal brain, possibly by destroying microtubules necessary for cell division occurring primarily during normal development (Trasande et al. 2005). Effects range from personality changes (shyness, irritability) to a severe neurological syndrome similar to cerebral palsy. In previous outbreaks of severe mercury contamination, children exposed prenatally had permanent cerebral involvement whereas their mothers had mild manifestations or none.

3. TDSHS and TPWD have imposed statewide fish consumption bans and advisories in public waters but do not prohibit the human consumption of freshwater turtles from these streams.

Over the last ten years, the TDSHS has imposed 14 fish consumption advisories for methyl mercury on surface waters in East Texas including: B.A Steinhagen Lake-Neches River in Jasper County; Sam Rayburn Reservoir-Angelina River in Jasper, Angelina, Nacogdoches and San Augustine counties; Caddo Lake (including Big Cypress Creek) in Marion and Harrison counties; Toledo Bend Reservoir-Sabine River in Sabine, Shelby, and Panola counties; Black Cypress Bayou in Cass County; Lake Pruitt in Hardin and Tyler counties; Kimball Lake in Hardin and Tyler counties; Dangerfield Lake in Morris County; and Ratcliff Lake in Houston County (TDSHS 2008).

The TDSHS has also issued an absolute fish consumption ban in four counties along the Trinity River, one of the largest watersheds in Texas that flows through the Dallas Fort Worth metroplex (TDSHS 2008). Due to elevated levels of chlordane, an organochlorine insecticide now banned by the EPA, the TDSHS issued a ban on fish possession and consumption from the Trinity River in Tarrant, Dallas, Henderson, and Navarro counties. Although commercial turtle trapping has been prohibited from the Trinity since September of 2007, the TDSHS and TPWD continue to allow recreational take of turtles from the Trinity for human consumption. (31 Texas Administrative Code § 65.327(b)(4)(2008); K. Wiles pers. comm. 2007). Significantly, dangerous levels of methyl mercury have been identified in common snapping turtles (*Chelydra serpentina*) and alligator snapping turtles (*Macrochelys temminckii*) in the Trinity River National Wildlife Refuge in Liberty County, one hour east of Houston (Mitchell, in press).

According to the U. S. Fish and Wildlife Service, both private and public surface waters in the Wichita Mountains of southern Oklahoma and Caddo Lake in northeast Texas produced elevated levels of methyl mercury in fish tissues that warranted fish consumption advisories. The Service concluded that the source of contamination derived from atmospheric mercury emissions of anthropogenic sources which do not distinguish public from private waters when depositing onto the earth (Giggleman and Lewis 2003; Giggleman et. al. 1995).

4. *Turtle dealers are harvesting potentially contaminated turtles and selling them for food in Texas, interstate and the United States*

Demand for turtle meat and their body parts deriving from wild caught turtles has been on the rise in growing Asian communities in Houston, Dallas Fort Worth, Oklahoma City, Atlanta, San Francisco and New York City. Turtle fat, organs and shell are boiled into a gel and served as an expensive delicacy in Asian restaurants (S. Haitao, pers. comm. 2007). In the summer of 2006 a herpetologist from the University of Texas Arlington identified more than 50 native adult softshell turtles (*Apalone*) and red eared slider (*Trachemys*) sold for food at an Asian market in Arlington, Texas. (J. Campbell pers. comm. 2007). Ten miles away, on the Trinity River in downtown Dallas, a canoe livery guide clandestinely videoed two turtle trappers in 2004 harvesting an estimated 400 pounds of wild turtles, including adult female softshells. As described above, this stream segment of the Trinity River is imposed with a fish consumption ban by the TDSHS. *See Exhibit B TDSHS fish consumption ban on the Trinity River in Tarrant, Dallas, Henderson, and Navarro counties; and Charles Allen, Trinity River Expeditions, video of commercial turtle harvest on the Trinity River in downtown Dallas county Texas, May 2004. 30 minutes. On record with the General Counsel and Nongame Division of the TPWD and the Seafood Unit of TDSHS.* Other reports exist of commercial operators using hoopnets in 2004 to take an unknown number of wild caught fish and turtles from the Trinity River in Navarro County for sale to Asian seafood markets in Houston. (J. Anderson pers. comm. 2004); and observations of large red eared sliders for sale at Asian food markets in the North Dallas-Richardson area (C. Allen pers. comm. 2007). TPWD law enforcement has received bills of sale documenting Asian markets in North Dallas, Collin County purchasing wild caught softshell turtles from a turtle dealer who is licensed by the TPWD. (T. Carbone pers. comm. 2007). Texas ATM herpetologists and TPWD game wardens have also documented the sale of wild caught softshell turtles in markets in Houston (J. Rao pers. comm. 2007; Ceballos and Fitzgerald 2004).

Turtle dealers from China frequent online commercial reptile websites and post solicitations to recruit American dealers to export “huge numbers” of freshwater turtles from the United States including common snapping turtles, softshell turtles and even the alligator snapping turtle, which is protected throughout its range except by licensed dealers in Louisiana. *See Exhibit C. Asian buyers of “huge numbers” of freshwater turtles from the United States.*

The TDSHS and TPWD have on record an April 2007 video of the U.S. Fish and Wildlife Service at Dallas Fort Worth Airport inspecting more than 1,000 wild caught live turtles for export as food to China (USFWS 2007). Data compiled from wildlife inspectors of the U. S. Fish and Wildlife Service in Texas show that from 2002-2005 more than 256,638 wild caught adult turtles were exported from Dallas Fort Worth Airport to Asia for human consumption. *See Exhibit D 2005-2002 USFWS Law Enforcement Management Information System data DFW airport. On record with the General Counsel and Nongame Division of the TPWD and the Seafood Unit of TDSHS.* 170,000 of these turtles were exported by a single interstate turtle dealer outside of Dallas who has boasted of exporting between 2,000 and 6,000 pounds of live wild caught turtles to China every week since 1995; and of supplying Asian markets throughout the United States including in Texas, California and New York. In 2007 this Texas dealer held numerous pyramid scheme seminars titled "Turning turtles into cash" and passed a card titled "U.S.T.A.R.T. United States Turtles & Aquatic Resources Technologies – A Rural Economic Development Ag CO-OP Income Generating Program." The Texas dealer publicly stated he already employed an interstate network of 450 collectors from states where unlimited harvest was legal - including Texas Oklahoma, Louisiana and Florida - to harvest turtles exclusively for his "private coop" interstate and export business; and that in Texas he purchases turtles that are harvested from both public and private waters. *See Exhibit E Notes from seminar "Turning turtles into cash March 2007 Cleburne Texas;" also on record with the General Counsel and Nongame Division of the TPWD and the Seafood Unit of TDSHS.* The dealer remarked needing to recruit additional collectors to join his "army" of trappers in the southern United States to capture an additional 300,000 wild caught turtles for the year 2007 to "feed Asia."

At his seminars, the Texas turtle dealer urged the audience to join his coop for $250, sign a license agreement to trap turtles exclusively to his business and provided each new member three hoopnets and a DVD how to trap turtles. The dealer attended each seminar with a refrigerated horse trailer that he described is capable of holding 14,000 lbs of turtles that he uses to transport and purchase turtles that are stockpiled by his collectors at locations throughout the south. The dealer stated that he primarily targets large common snapping turtle and softshell turtle (10-30 pounds) from the wild for their greater meat potential and pays collectors a higher price per pound, compared to prices yielded from turtles classified as red eared slider and river cooter ($1.00 per pound versus 10 cents per pound). *See Exhibit E* At his "recruitment seminar" in Stephenville Texas on March 7, 2007 the dealer wore a dress shirt with an embroidered patch that stated "Texas Parks and Wildlife Department."

Although the TPWD recently passed legislation in September of 2007 prohibiting commercial take of turtles from public waters and continuing to allow unlimited commercial harvest from private waters, these measures foster illegal harvest from public waters due to the paucity of law enforcement personnel in the field. Commercial collectors are therefore able to harvest potentially contaminated turtles from Texas streams where fish advisories are imposed by the TDSHS. These turtles are sold for human consumption to seafood markets in Texas, the United States and other countries including Asia.

6. *Due to public health risk, the TDSHS and TPWD should immediately prohibit commercial harvest of turtles in Texas and lead a state and federal interagency investigation of commercial sales of potentially contaminated wild caught turtles for human consumption in Asian seafood markets and restaurants in Texas, the United States, and other countries*

In light of the evidence associating commercial harvest of wild Texas turtles for intrastate, interstate and international human consumption with PCB, pesticide and heavy metal contaminated Texas streams, and due to scientific evidence that suggests turtles bioaccumulate greater levels of aquatic contaminants, especially adult turtles, beyond permissible values for human consumption, the TDSHS and TPWD should immediately prohibit commercial collection and sale of all wild caught turtles, until a multi-agency investigation is executed to determine: 1) the number of intrastate and interstate seafood markets and restaurants selling wild caught turtles originating from Texas; 2) the toxicity levels of turtles sold to these markets; and 3) the streams producing wild caught turtles for human consumption for buyers instrastate, interstate and internationally. An emergency moratorium is necessary immediately since commercial collectors and dealers are actively harvesting turtles for their meat potential this spring for sale to markets for human consumption.

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Videos

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