

**TEL Broadcast – Interpretive Techniques
Interpretive Development Program
April 24, 2007 12:00-4:00 PM EDT
Participant Guide**

(TEL POC's -- please make sure that participants at your site receive this information)

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Contents of this guide:

- Pre-course assignment, reading and handouts
- Links to other helpful resources and references

Your pre-session prep-time for this broadcast – approximately 30-60 minutes

Participant materials and references:

I. Pre-course reading and handouts for use during the TEL broadcast -- please print these handouts, read them, and bring them with you to the broadcast:

- Pre-course Assignment using *Mark Twain excerpt* (pages 2-3 below)
- Compare Writing Examples – *Sea Turtle Data Sheet and The Last Hatchling* (pages 4-5 below)
- Developmental Worksheet – *Opportunities for Intellectual and Emotional Connections*
<http://www.nps.gov/idp/interp/101/ConnectionOps.doc>

Please also bring your park's copy of *Handles – A Compendium of Interpretive Techniques to Help Visitors Grasp Resource Meanings*, by Peggy Scherbaum. All Chiefs of Interpretation received a copy of this publication for their parks last fall**

NOTE: All participants should have introductory grounding in foundational interpretive theory. For a review of these principles, you may wish to access the free, on-line course entitled "Foundations of Interpretation" at www.parktraining.org. Or you may wish to review this material in-depth in the workbook entitled "Meaningful Interpretation," edited by David Larsen** (This material was formerly known as Module 101)

II. Links to other useful tools and references – explore on your own:

- Developmental Worksheet – The Interpretive Equation
<http://home.nps.gov/idp/interp/101/Equationwksheet.doc>
- Interpreter's Toolbox Worksheet
<http://www.nps.gov/idp/interp/210/210wksheet.doc>
- Interpretive Themes
<http://www.nps.gov/idp/interp/101/themes.pdf>
- Interpretive Process Model
<http://www.nps.gov/idp/interp/101/processmodel.pdf>
- On-line tutorial for the Interpretive Process Model
<http://www.nps.gov/interp/idp/epply/default.html>

**Additional copies of *Handles* and *Meaningful Interpretation* are available through Eastern National at (877) NAT-PARK or (877) 628-7275, or at eparks.com (by title search).

Pre-Course Assignment

Read the Mark Twain excerpt below and identify the interpretive/literary techniques – make a list of the techniques, count them, and write down the total number you found. Count each technique only once. Bring your list to the broadcast. (For help in identifying interpretive techniques, see Handles.)

Mark Twain on Ants

It seems to me that in the matter of intellect the ant must be a strangely overrated bird. During the many summers, now, I have watched him, when I ought to have been in better business, and I have not yet come across a living ant that seemed to have any more sense than a dead one. I refer to the ordinary ant, of course; I have no experience of those wonderful Swiss and African ones which vote, keep drilled armies, hold slaves, and dispute about religion. Those particular ants may be all that the naturalist paints them, but I am persuaded that the average ant is a sham. I admit his industry, of course; he is the hardest working creature in the world,--when anybody is looking,--but his leather-headedness is the point I make against him. He goes out foraging, he makes a capture, and then what does he do? Go home? No,--he goes anywhere but home. He doesn't know where home is. His home may be only three feet away,--no matter, he can't find it. He makes his capture, as I have said; it is generally something which can be of no sort of use to himself or anybody else; it is usually seven times bigger than it ought to be; he hunts out the awkwardest place to take hold of it; he lifts it bodily up in the air by main force, and starts; not toward home, but in the opposite direction; not calmly and wisely, but with a frantic haste which is wasteful of his strength; he fetches up against a pebble, and instead of going around it, he climbs over it backwards dragging his booty after him, tumbles down on the other side, jumps up in a passion, kicks the dust off his clothes, moistens his hands, grabs his property viciously, yanks it this way then that, shoves it ahead of him a moment, turns tail and lugs it after him another moment, gets madder and madder, then presently hoists in into the air and goes tearing away in an entirely new direction; comes to a weed; it never occurs to him to go around it; no, he must climb it; and he does climb it, dragging his worthless property to the top--which is as bright a thing to do as it would be for me to carry a sack of flour from Heidelberg to Paris by way of Strasburg steeple, when he gets up there he finds that that is not the place; takes a cursor glance at the scenery and either climbs down again or tumbles down, and starts off once more--as usual, in a new direction. At the end of half an hour, he fetches up within six inches of the place he started from and lays his burden down; meantime he has been over all the ground for two yards around, and climbed all the weeds and pebbles he came across. Now he wipes the sweat from his brow, strokes his limbs, and then marches aimlessly off, in as violent a hurry as ever. He traverses a good deal of zig-zag country, and by and by stumbles on this same booty again. He does not remember to have ever seen it before; he looks around to see which is not the way home, grabs his bundle and starts; he goes through the same adventures he had before; finally stops to rest, and a friend comes along. Evidently the friend remarks that a last year's grasshopper leg is a very noble acquisition, and inquires where he got it. Evidently the proprietor does not remember exactly where he did get it, but thinks he got it "around here somewhere." Evidently the friend contracts to help him freight it home. Then, with a judgment peculiarly antic, (pun not intentional) they take hold of opposite ends of that grasshopper leg and begin to tug with all their might in opposite directions. Presently they take a rest and confer together. They decide that something is wrong, they can't make out what. Then they go at it again, just as before. Same result. Mutual recriminations follow. Evidently each accuses the other of being an obstructionist. They warm up, and dispute ends in a fight. They lock themselves together and chew each other's jaws for a while; then they roll and tumble on the ground till one loses a horn or a leg and has to haul off for repairs. They make up and go to work again in the same old insane way, but the crippled ant is at a disadvantage; tug as he may, the other one drags off the booty and him at the end of it. Instead of giving up, he hangs on, and gets his shins bruised against every obstruction that comes in the way. By and by, when that grasshopper leg has been dragged all over the same old ground once more, it is finally dumped at about the spot where it originally lay, the two perspiring ants inspect it thoughtfully and decide that dried grasshopper legs are a poor sort of property after all, and then each starts off in a different direction to see if he can't find an old nail or something else that is heavy enough to afford entertainment and at the same time valueless enough to make an ant want to own it.

There in the Black Forest, on the mountain side, I saw an ant go through with such a performance as this with a dead spider of fully ten times his own weight. The spider was not quite dead, but too far gone to resist. He had a round body the size of a pea. The little ant--observing that I was noticing--turned him on his back, sunk his fangs

into his throat, lifted him into the air and started vigorously off with him, stumbling over little pebbles, stepping on the spider's legs and tripping himself up, dragging him backwards, shoving him bodily ahead, dragging him backwards, shoving him bodily ahead, dragging him up stones six inches high instead of going around them, climbing weeds twenty times his own height and jumping from their summits, --and finally leaving him in the middle of the road to be confiscated by any other fool of an ant that wanted him. I measured the ground which this ass traversed, and arrived at the conclusion that what he had accomplished inside of twenty minutes would constitute some such job as this,--relatively speaking,--for a man; to-wit: to strap two eight-hundred pound horses together, carry then eighteen hundred feet, mainly over (not around) boulders averaging six feet high, and in the course of the journey climb up and jump from the top of one precipice like Niagara, and three steeples, each a hundred and twenty feet high; and then put the horses down, in an exposed place, without anybody to watch them, and go off to indulge in some other idiotic miracle for vanity's sake.

Science has recently discovered that the ant does not lay up anything for winter use. This will knock him out of literature, to some extent. He does not work, except when people are looking, and only then when the observer has a green, naturalistic look, and seems to be taking notes. This amounts to deception, and will injure him for the Sunday schools. He has not judgment enough to know what is good to eat from what isn't. This amounts to ignorance, and will impair the world's respect for him. He cannot stroll around a stump and find his way home again. This amounts to idiocy, and once the damaging fact is established, thoughtful people will cease to look up to him, the sentimental will cease to fondle him. His vaunted industry is but a vanity and of no effect, since he never gets home with anything he starts with. This disposes of the last remnant of his reputation and wholly destroys his main usefulness as a moral agent, since it will make the sluggard hesitate to go to him any more. It is strange beyond comprehension, that so manifest a humbug as the ant has been able to fool so many nations and keep it up so many ages without being found out.

-- excerpted from *A Tramp Abroad*

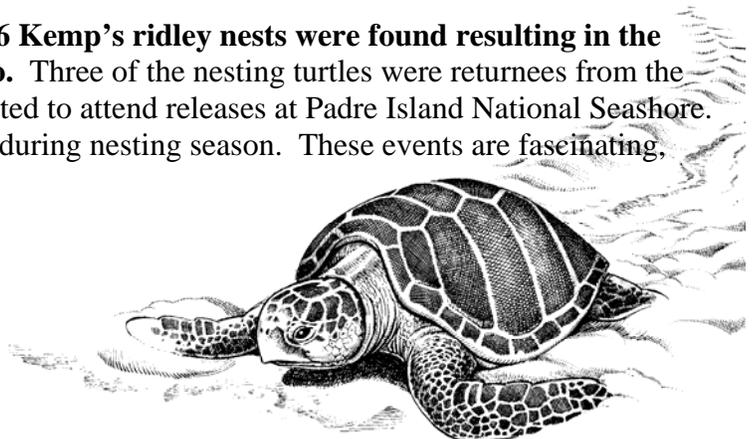
Kemp's Ridley Sea Turtle Program **Data Sheet**

The Kemp's ridley sea turtle, *Lepidochelys kempii*, is the smallest of the five species of sea turtles found in the Gulf of Mexico (others include loggerhead, green, hawksbill, and leatherback). It has an average length of 23 to 27.5 inches and average weight of 100 pounds. This sea turtle is the only one with an almost circular upper shell. The young are dark gray in color but change as they mature. Adults are olive green above and yellow below. Their diet consists mostly of crabs. The Kemp's ridley adult's range is chiefly in the Gulf of Mexico, but immature turtles, probably carried by the currents, often appear along the Atlantic coast as far north as New England and Nova Scotia. Their nests consist of 80-100 eggs with an average of around 100.

The species' primary nesting ground is on the beach near Rancho Nuevo, Tamaulipas, Mexico. To help insure their survival in the event of a disaster effecting the beach, the governments of the US and Mexico joined together to establish a second nesting beach at Padre Island National Seashore. Kemp's were known to nest on the island sporadically. During each summer from 1978 to 1988 approximately 2,000 Kemp's ridley eggs were transported from Rancho Nuevo to the National Seashore. Here they were incubated and the hatchlings were temporarily released into the water. They were then recaptured and transported to a facility near Galveston, Texas. The young turtles were raised until they were a year old. This effort was called the "head start" program. This program enhanced their survival rate by releasing young turtles that were too big for most predators to eat as opposed to the natural process in which only one out of every one hundred hatchlings survive to maturity. Hopes were high that because the Kemp's ridley always returns to the beach of its birth for its own nesting, that the turtles would return to Padre Island National Seashore as adults. This is where the hatchlings were first released into the water and "imprinted" with a memory of the island. Of the 22,507 eggs received, 17,358 (77.1%) hatched and 13,454 turtles were released into the Gulf of Mexico after 9 to 11 months of head starting. From 1979 to 1996, seventeen Kemp's ridley nests were documented along the Texas coast, most of which were found at the National Seashore. Two of the nests found in 1996 were from turtles that had "living tags" and had been incubated at the National Seashore. In 1997 nine Kemp's ridley nests were located on the Texas coast. Seven of these were found on North Padre Island (including the National Seashore), one on Mustang Island, and one on South Padre Island. Visitors to the island located five of the nests, while National Seashore employees were able to examine only three nesting turtles. None of the turtles in 1997 had any tags or markings linking them to the program. In 1998, 13 Kemp's ridley nests were located and 800 hatchlings released. Three had living tags identifying them as "head start" turtles released over 10 years ago.

During the nesting season of 1999, a total of 16 Kemp's ridley nests were found resulting in the release of 1,237 turtles into the Gulf of Mexico. Three of the nesting turtles were returnees from the original "head start" program. The public is invited to attend releases at Padre Island National Seashore. Most releases occur between March and August during nesting season. These events are fascinating, educational, and entertaining for all ages.

The Hatchling Hotline
(361) 949-7163



The Last Hatchling

The moment at a sea turtle release when the last Kemp's ridley hatchling of a clutch makes its first contact with the Gulf is exhilarating. The crowd cheers and bursts out in applause as they watch the surf snatch the infant from the security of the release and into its new world. For an hour or more dozens of people have lined the shore, fascinated by the trials of maybe a hundred two-inch long turtles struggling over fifty feet of sand and seaweed, desperately trying to reach the water before being whisked away by a hungry gull. The disappearance of the last hatchling into the turbulent surf signals another chance that the species will survive. If all 100 hatchlings were to survive to adulthood, the entire adult population of the species (estimated at 7,500 turtles) would increase by about 1.5%. Unfortunately, out of the hundred released maybe five will make it to maturity.

It is ironic that for a quiet, innocuous sea turtle, life is a constant solitary battle against the world. From the moment of birth sea turtles are on their own. The mother turtle comes ashore long enough to dig a nest, lay her eggs, and cover them up. She then goes immediately back into the water. Because she is facing away from the nest as she lays the eggs and buries them with her rear flippers, the mother never sees her own young. For the next 45-60 days the eggs lay waiting either to hatch or to be discovered by a coyote, raccoon, or other opportunistic predator. Once hatched, the infants must dig their way through about a foot of sand to reach the surface and crawl up to a hundred feet to reach the Gulf. Some are not strong enough to reach the surface and die in the nest. The ones that do reach the surface must now, if there are no coyotes or raccoons present, face other predators: gulls and crabs. A flock of gulls could decimate a sea turtle clutch in a few minutes. Crabs will either drag a hatchling into their burrows or go about snipping the tendons in the front flippers of several hatchlings leaving them immobile until the crab can return and feed at leisure. It is believed that once in the water, the survivors strike out for the floating mats of seaweed in the Gulf. Along the way, many will be lost to marine predators. Once in the mats they will hide and feed on the small animal life they find until about a year old and too big for most predators to eat. Then they leave the seaweed to forage around the Gulf and (sometimes) the Atlantic, for the rest of their lives.

Of course, humans may interrupt this cycle anywhere along the way for either good or bad. For the most part, humans have interrupted to the sea turtle's detriment. In some countries, people may rob nests in order to sell the eggs at market. However, a primary cause of unnatural death among Kemp's ridleys is believed to be drowning in shrimping nets. Sea turtles are reptiles and must breathe air. If they are entangled in a net for too long, they drown. Humans may also bring about the death of Kemp's ridley and other sea turtles by other means, including dumping garbage into the Gulf of Mexico or into rivers and streams that flow to the Gulf. If sea turtles become entangled in discarded nets or six-pack rings or if they mistake enough garbage for prey, they may die.

But people may also help the Kemp's ridley to survive. Governmental and private organizations have sprung up to help sea turtles survive in the modern world. At Padre Island National Seashore, the National Park Service has teamed up with another federal agency, the U.S. Geological Survey, and private companies to study and help restore the Kemp's ridley to the Gulf. During the sea turtle nesting season, which runs from late March through August, volunteers and staff biological technicians patrol the shoreline searching for sea turtle nests. The eggs are incubated at the seashore and the hatchlings released. If we are lucky enough to find a nesting mother, she is examined, tagged, and released the same day. Different types of tags may be used, but if the budget permits, a radio transmitter will be placed on her back so that her travels around the Gulf may be studied via satellite relay.

Kemp's ridley sea turtles are only one of the five Gulf of Mexico sea turtle species and 491 other animals on the federal Endangered Species list as of May 31, 2000. Therefore, the disappearance of the last hatchling into the surf signals something else as well: another chance for the vanishing wildlife of North America to survive.

Space for Taking Notes