

Volunteers training in Gandoca.

2003

First thing to do is to ask the volunteer for the inscription receipt, if is in the house must bring it right a way and if they didn't come to San José office they must pay the \$25 dollars inscription fee to the Biologists in charge.

Work on the beach:

1. PATROLLING THE BEACH:

- a. There are several research assistants who are biologists or marine biologists part of ANAI staff.
- b. There are also several town assistants who have a huge experience working with turtles, years of field knowledge.

You are spouse to do whatever they say regarding the patrolling work or any other work involving turtle research. Each night you will walk with one of them.

2. MEETING POINT BEFORE PATROLLING:

Every night volunteers will meet at ANAI Station, also called Cangrejo station. You must come on time.

SHIFTS:

- a. The beach is about 9 miles length and is divided into 3 sectors, A, B and C.
- b. Because of geographic accidents and the longitude of the sectors you are suppose to be here 30 minutes before if you are on sector C or A in the squederal and 15 minutes before if you are going to Sector B.
- c. There are to different shifts one that goes from 8:00 pm to 12: 00 am and the other one that goes from 12:00 am to 4: 00 am

- d. All squeduals must be at the volunteer's house by 12: 00 PM and the volunteers that just arrive will then during the training decide if they want to patrol that same night or next day according to the Volunteer training and the help needed.

IMPORTANT THINGS AT THE BEACH:

- a. Do not use repellent when going to the beach
- b. Do not smoke in the beach
- c. Use black or blackish cloths
- d. We recommend for you to use long pants, not shorts
- e. Use only a flashlight with a red filter
- f. Never walk barefoot

3. HATCHERY WORK:

Each volunteer will have to work some days in either hatchery A or B and you will be train by the research assistant in charge of each hatchery.



THE LEATHERBACK TURTLE:

General information:



*Is the biggest species of sea turtle, measuring in average carapace length in Gandoca 155 cm or about 5 feet.

*They can weight between 300-600 kilograms (700-1300) pounds.

*The leatherback turtle is listed as a critically endangered species and is included in Appendix 1 of CITES and in the Red data book of the UICN.

*To be listed as critically endangered means that there has being a lost of about 80% in the last 10 years.

*The estimate number of leatherbacks worldwide range from 26,000 to 43,000 individuals.

*The leatherbacks are the most widely distributed of all sea turtles ranging through all the oceans from the Sub-Artic to the Southern Extremes of all the continents. They can travel over 5,900 KM (3600 Miles) in its search for food, but despite this large distances the females will always return to the same areas to nest.



*Leatherbacks have been recorded to dive incredible depths with dives of up to 1000 meters (3300 feet) lasting 35 minutes, although dives normally only average 15 minutes.

*Leatherbacks reach maturity at about 10 to 12 years old.

*Leatherbacks come and nest every two or three years, but each nesting year they can come even 5 times during the season in periods of 9 to 12 days.

*The average nest size for leatherbacks is 114 eggs with about 30% of eggs infertile.

* The main source of food for these amazing animals is Jellyfish.

PROBLEMS:

Factors that affect the different live stages of marine turtles.

1. Anthropologic effects (Made by human)

- a. Poaching
- b. Hunting
- c. Coastal Development
- d. Pollution
- e. Obstacles in the sand
- f. Compactation of sand
- g. Sand walls
- h. Tourism
- i. Human Pets e.g., dogs
- j. Incidental fishing



2. Non Anthropologic effects (No human made)

- a. Natural predation
- b. Erosion of the beach
- c. Clime

Variable	Valor*
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Número de nidos de baula	628 ∞
Número de nidos de carey	12
Número de nidos de verde	5
Hembras de baula marcadas	161
Hembras de baula con PIT's	50
Hembras de carey marcadas	1
Hembras de verde marcadas	7
Hembras de baulas con PIT's otros años	14
Hembras de baula remigrantes	67
Hembras de carey remigrantes	1
Hembras neófitas de baula	39
Hembras que anidaron en Playa Negra	55
Largo curvo estándar para baulas (cm)	152,5
Ancho curvo promedio para baulas (cm)	110.37
Intervalo de reanidación más frecuente	10 días
Número de nidos en vivero	135
Índice máximo de reanidación	6 veces
Índice mínimo de reanidación	2 veces
Porcentaje de eclosión en vivero	14,42%
Porcentaje eclosión para carey	94,63%
Porcentaje eclosión para verde	90,23%
Total de neonatos de baula (vivero)	1557
Total de neonatos de carey (vivero)	142
Total de neonatos de verde (vivero)	571
Biometría para baulas:	
Número de huevos normales manejados	23,219
Número de huevos infértiles manejados	8,013
Promedio huevos normales/nido	81,80
Promedio huevos infértiles/nido	30,12
Profundidad promedio de nido (cm)	75,57
Ancho promedio de nido (cm)	41.02
Kilómetros de playa en Gandoca	11
Total de voluntarios	259

***:Incluye datos del 20/02/2002 hasta el 30/08/2002, 1: Gandoca, 2: Playa Negra**

∞: Valor máximo estimado, 367 nidos valor mínimo estimado

Playa y año	Número de tortugas
Gandoca 1994	1
Gandoca 1995	12
Gandoca 1996	3
Gandoca 1997	11
Gandoca 1999	18
Gandoca 2000	20
Tortuguero 1997	1
Playa Bluff, Panamá, 1996	2
Playa Bluff, Panamá, 1997	4
Playa Bluff, Panamá, 1998	1
Playa Bluff, Panamá, 2000	2
Mondonguillo 1991	1
Mondonguillo 1998	2
Mondonguillo 1999	3
Mondonguillo 2000	2
Mondonguillo 2002	4
Pacuare 1999	3
Pacuare 2000	6
Soropta, Panamá 2002	3
Indeterminadas	15
Total	114

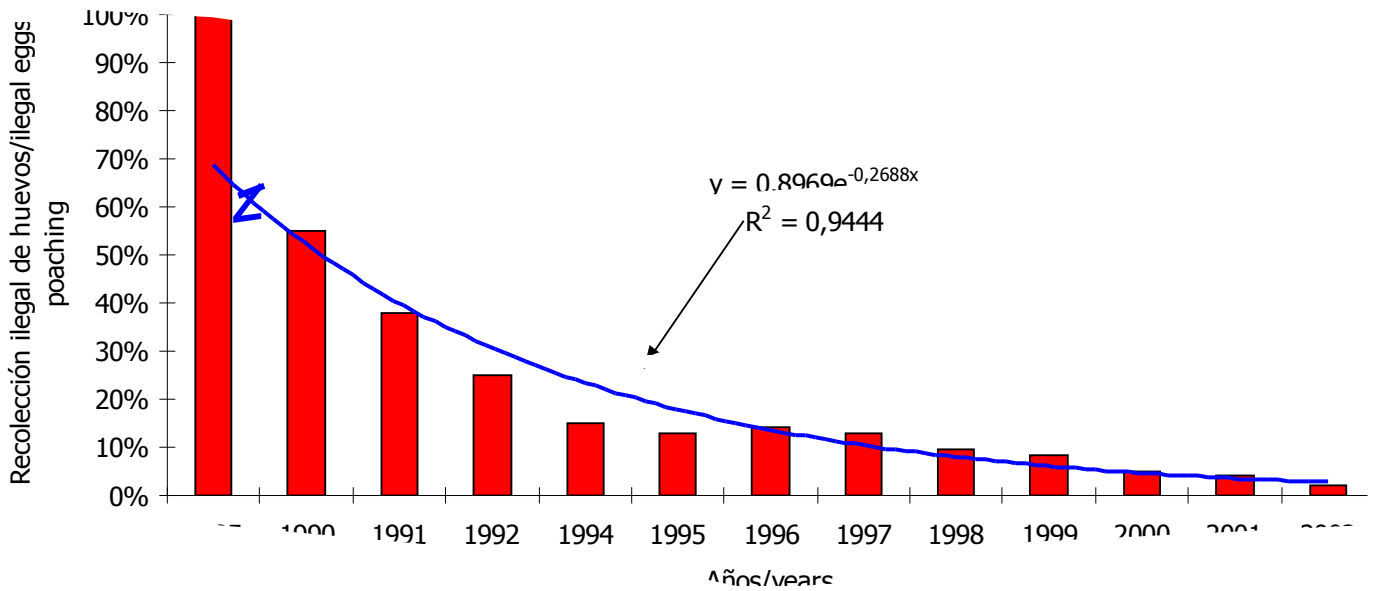
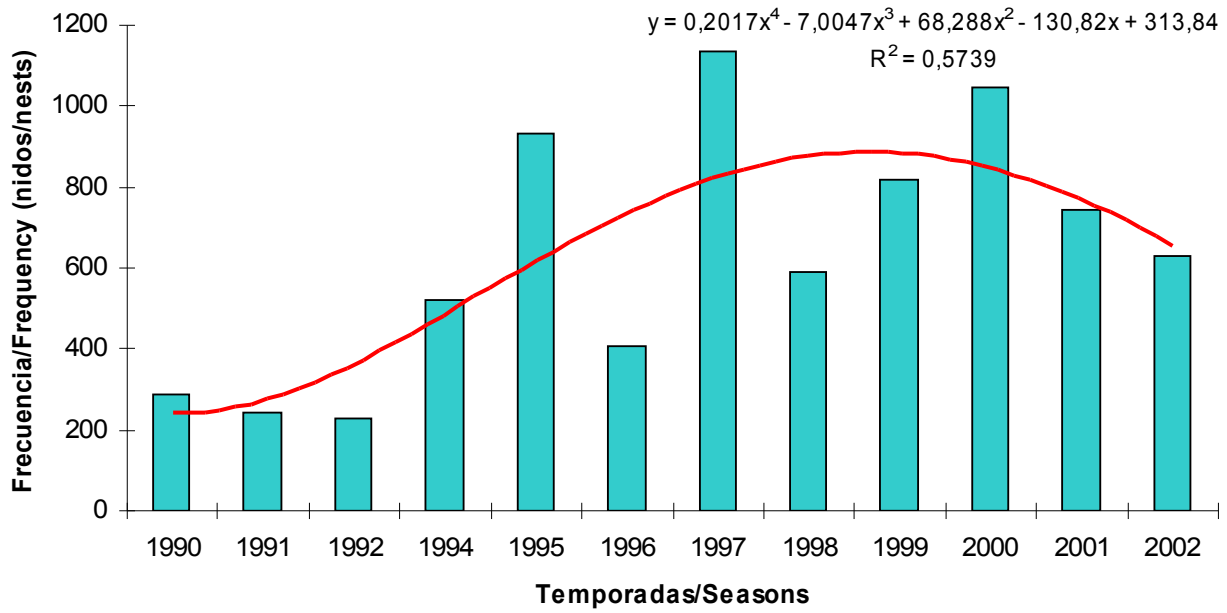
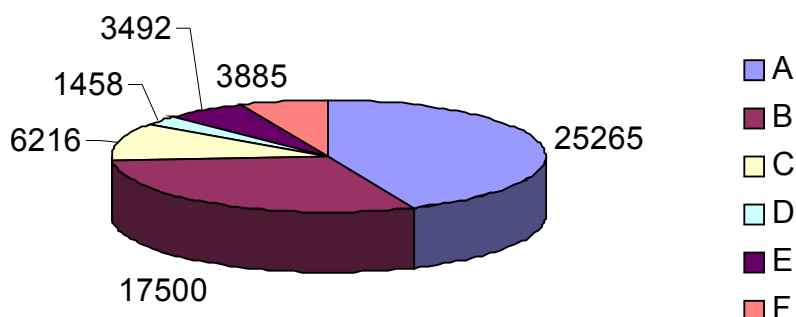


Figura 1: Ingresos totales estimados para la comunidad temporada 2002.

Ingresos directos para la comunidad de Gandoca mediante el programa de conservación



Las cifras mostradas en el gráfico son ingresos directos en dólares.

- A. Ingresos directos para los cabineros.
- B. Ingresos de locales contratados por el programa cada temporada.
- C. Ingresos por transporte local.
- D. Fondo de Conservación tomado del monto de inscripción por voluntario
- E. Ingresos para el campamento.
- F. Otros gastos: pulpería, tours, etc.

Los ingresos documentados durante la temporada 2002 distribuidos en la Comunidad de Gandoca alcanzan los **US\$57,816 (alcanzando los C.21, 681,000 mil colones; C. 375=US\$1, mientras que el valor de mercado de todos los huevos de esta temporada solo fue de \$6,885 lo que fortalece el argumento que el modelo de trabajo durante temporada superó en 800% los ingresos, de haberse vendido los huevos en el mercado negro)**. Este monto es un monto mínimo, y definitivamente el número es mayor pero la dificultad de llevar un control exacto no nos permite saber más.

Los \$25 de inscripción tiene dos usos fundamentales. El primero es cubrir los gastos operativos del entrenamiento de los voluntarios, pago de manuales, instrucciones y documentos entregados a los voluntarios.