

**TERRAPIN MONITORING AT THE PAUL S. SARBANES ECOSYSTEM
RESTORATION PROJECT AT POPLAR ISLAND**

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Nick Smeenck of Ohio University holds an Eastern Kingsnake caught after eating the eggs from a terrapin nest on the PIERP

BACKGROUND

The Paul S. Sarbanes Ecosystem Restoration Project at Poplar Island, formerly known as the Poplar Island Environmental Restoration Project (PIERP), is a large-scale project that is using dredged material to restore the once-eroding Poplar Island in the Middle Chesapeake Bay. As recently as 100 years ago, the island was greater than 400 hectares and contained uplands and high and low marshes. During the past 100 years, the island eroded and by 1996 only three small islands (<4 hectares) remained before the restoration project commenced. The Project Sponsors, the United States Army Corps of Engineers (USACE) and the Maryland Port Administration (MPA), are rebuilding and restoring Poplar Island to a size similar to what existed over 100 years ago. A series of stone-covered perimeter dikes facing the windward shores of PIERP were erected to prevent erosion. Dredged material from the Chesapeake Bay Approach Channels to the Port of Baltimore is being used to fill the areas within the dikes. The ultimate goals of the project are: to restore remote island habitat in the mid-Chesapeake Bay using clean dredged material from the Chesapeake Bay Approach Channels to the Port of Baltimore; optimize site capacity for clean dredged material while meeting the environmental restoration purpose of the project; and protect the environment around the restoration site. Ultimately, this restoration will benefit the wildlife that once existed on Poplar Island.

After completion of the perimeter dikes in 2002, diamondback terrapins, *Malaclemys terrapin*, began using the newly formed habitat as a nesting site (Roosenburg and Allman 2003; Roosenburg and Sullivan, 2006; Roosenburg and Trimbath, 2010; Roosenburg et al., 2004; 2005; 2007; 2008). The persistent erosion of Poplar and nearby islands had greatly reduced the terrapin nesting and juvenile habitat in the Poplar Island archipelago. Prior to the initiation of the PIERP, terrapin populations in the area likely declined due to emigration of adults and reduced recruitment because of limited high quality nesting habitat. By restoring the island and providing nesting and juvenile habitat, terrapin populations utilizing the PIERP and the surrounding wetlands could increase and potentially repopulate the archipelago. The newly restored wetlands could provide the resources that would allow terrapin populations to increase by providing high quality juvenile habitat.

The PIERP is a unique opportunity to understand how large-scale ecological restoration projects affect terrapin populations and turtle populations in general. In 2002, a long-term terrapin monitoring program was initiated to document terrapin nesting on the PIERP. By monitoring the terrapin population on the PIERP, resource managers can learn how creating new terrapin nesting and juvenile habitat affects terrapin populations. This information will contribute to understanding the ecological quality of the restored habitat on the PIERP, as well as understanding how terrapins respond to large-scale restoration projects. The results of seven years of terrapin nesting surveys and juvenile captures are summarized herein to identify how diamondback terrapins use habitat created by the PIERP and how it has changed during that time.

The 2006 PIERP Framework Monitoring Document (FMD) identifies three

reasons for terrapin monitoring. The first is to quantify the use of nesting and juvenile habitat by diamondback terrapins on Poplar Island, including the responses to change in habitat availability as the project progresses. The second is to evaluate the suitability of terrapin nesting habitat by monitoring nest and hatchling viability, recruitment rates, and hatchling sex ratios. The third is to determine if the project affects terrapin population dynamics by increasing the available juvenile and nesting habitat on the island.

The terrapin's charismatic nature makes it an excellent species to use as a tool for environmental outreach and education. Some of the terrapin hatchlings that originate on the PIERP participate in an environmental education program in the Anne Arundel County, Talbot County, and Baltimore metropolitan area through the Arlington Echo Outdoor Education Center (AE), the Maryland Environmental Service (MES), the Horn Point Environmental Laboratory (HPL) and the National Aquarium (NAIB). These programs provide students with a scientifically-based learning experience that also allows Ohio University (OU) researchers to gather more detailed information on the nesting biology of terrapins, in addition to providing an outreach and education opportunity for the PIERP. As part of the terrapin research program at the PIERP, OU researchers are collaborating with staff at AE, MES, and NAIB to foster both a classroom and field experience that uses terrapins to teach environmental education and increase awareness for the PIERP. The students raise the terrapins throughout their first winter and they attain a body size that is comparable to 2-5 year old wild individuals, thus "headstarting" their growth. The specific goals of the terrapin outreach program are:

- 1) Provide approximately 250 terrapin hatchlings to AE, MES, HPL and NAIB to be raised in classrooms.
- 2) Obtain sex ratio data from the hatchlings through endoscopy.
- 3) Conduct a scientifically-based program to evaluate the effectiveness of head-starting.

METHODS

Specific details of differences in surveys and sampling techniques used during 2002 - 2009 can be found in Roosenburg and Allman (2003), Roosenburg and Trimbath (2010), and Roosenburg et al. (2004; 2005; 2008). Since 2004, survey efforts to find nests were consistent and thorough. Details of the general survey methods and specific techniques employed during 2009 are described below.

Identification of terrapin nests: From 15 May to 1 August 2009, OU researchers surveyed the following areas on PIERP daily: beaches in the Notch area (surrounding the northwestern tip of Coaches Island near Cell 4AB), areas between Coaches Island and the PIERP (outside of Cell 5AB), and the beach outside the dike near Cell 3B in Poplar Harbor (Figure 1). Researchers surveyed nesting areas inside the future upland cell (Cell 6) occasionally to confirm the absence of nesting here because of the dike closure of Cell 6 in the Fall of 2007. The researchers also occasionally searched the periphery of Cell 4DX for signs of terrapin nesting on the surrounding dikes. A geographic positioning system (GPS) recorded nest positions and survey flags identified the specific nest

locations. Upon discovering a nest, researchers examined the eggs to determine the age of the nest. If the eggs were white and chalky, they considered the nest greater than 24 hours old and no further excavation was conducted because of increased risk of rupturing the allantoic membrane and killing the embryo. Researchers excavated recent nests (less than 24 hours old, identified by a pinkish translucent appearance of the eggs) to count the number of eggs, and from 2004 through 2009 weighed the individual eggs. Researchers marked nests with four 7.5 cm² survey flags, and beginning in 2005, laid a 30 cm by 30 cm, 1.25 cm² mesh rat wire on the sand over the nest to deter avian nest predators, primarily crows.

Monitoring nesting and hatching success: After 45 to 50 days of egg incubation, researchers placed an aluminum flashing ring around each nest to prevent emerging hatchlings from escaping. Anti-predator (1.25 cm²) wire also was placed over the ring to prevent predation of emerging hatchlings within the ring. Beginning in late July, the researchers checked ringed nests at least once daily for emerged hatchlings. Researchers brought newly emerged hatchlings to the onsite storage shed where they measured and tagged the hatchlings.

Researchers excavated nests ten days after the last hatchling emerged. For each nest, they recorded the number of live hatchlings, dead hatchlings that remained buried, eggs with dead embryos, and eggs that showed no sign of development. To estimate



Figure 1. Red indicates areas on the PIERP that were monitored daily for terrapin nests by the research team. Green area were monitored more 2-3 times per week.

hatching success, researchers compared the number of surviving hatchlings to the total number of eggs from only the nests that were excavated within 24 hrs of oviposition, which provided a definite count of the number of eggs. Additionally, researchers determined if the nest was still active – with eggs that appeared healthy and had not completed development. The researchers allowed nests containing viable eggs or hatchlings that had not fully absorbed their yolk sac to continue to develop; however, researchers removed fully developed hatchlings from nests, further described in the next section.

Capture of hatchlings: Researchers collected hatchlings from ringed nests and also from un-ringed nests that were discovered by hatchling emergence. Additionally, researchers found a small number of hatchlings on the beach, which they collected and processed. Because a significant number (74) of the 2009 nests over-wintered (hatchlings remaining in the nest until spring of the following year), researchers traveled to the PIERP on 30 March and 31 March 2010 to excavate and determine the fate of the over-wintering nests.

Measuring, tagging, and release of hatchlings: Researchers brought all hatchlings back to the MES shed onsite where they placed hatchlings in plastic containers with water until they were processed (measured, notched, and tagged), usually within 24 hours of capture. Researchers marked hatchlings by notching with a scalpel the 10th right marginal scute and 11th left marginal scute establishing the cohort ID 10R11L for 2009 fall emerging hatchlings. OU personnel gave spring 2010 emerging hatchlings a different cohort ID of 10R12L (notching the 10th right marginal scute and 12th left marginal scute) to distinguish fall 2009 from spring 2010 emerging hatchlings upon later recapture. From 2002 through spring 2007 different notch codes were used to identify specific cohorts upon subsequent recapture. Researchers implanted individually marked coded wire tags (CWTs, Northwest Marine Technologies[®]) in all hatchlings. The CWTs were placed subcutaneously in the right rear limb using a 25-gauge needle. The CWTs should have high retention rates (Roosenburg and Allman, 2003) and in the future researchers will be able to identify terrapins originating from the PIERP for the lifetime of the turtle by detecting tag presence using Northwest Marine Technologies' V-Detector.

Researchers measured plastron length, carapace length, width, and height (± 0.1 mm), and mass (± 0.1 g) of all hatchlings. Additionally, they checked for anomalous scute patterns and other developmental irregularities. Following tagging and measuring, researchers released all hatchlings in either Cell 4DX or Cell 3D. During 2002 – 2003 hatchlings were also released in the Notch. On several occasions, large numbers (>50) of hatchlings were simultaneously released but dispersed around the cell to minimize avian predation.

Measuring, tagging, and release of juveniles and adults: All juvenile and adult turtles encountered on the island were transported to the onsite shed for processing. Researchers recorded plastron length, carapace length, width, height (± 1 mm), and mass (± 1 g) of all juveniles and adults. Passive Integrated Transponder (PIT, Biomark Inc.) tags were implanted in either the right rear foot or in the right inguinal region. in the loose skin anterior to the hind limb where it meets the plastron. Additionally, during all years a

Monel tag (National Band and Tag Company) was placed in the 9th right marginal scute. The number sequence on the tag begins with the letters PI, identifying that this animal originated on Poplar Island.

Terrapin Education and Environmental Outreach Program: During 2009, 251 PIERP hatchlings were reared in the terrapin education and environmental outreach programs at AE, the NAIB, HPL, and MES. In April and May 2010, researchers traveled to AE to implant PIT tags in 230 headstarted individuals: an additional 21 individuals were tagged by staff at HPL and data were forwarded to OU. Researchers also measured and weighed all animals at this time. From late May through July 2010, the AE terrapins were returned to the PIERP and released in the Notch.

Researchers summarized and processed all data using Microsoft Excel[®] and Statistical Analysis System (SAS). Graphs were made using Sigmaplot[®]. Institutional Animal Care and Uses Committee at OU (IACUC) approved animal use protocols (#L01-04) and Maryland Department of Natural Resources (MD DNR) – Fisheries Division issued a Scientific Collecting Permit Number SCO-46317 to Willem M. Roosenburg (WMR).

RESULTS AND DISCUSSION

Nest and Hatchling Survivorship: During the 2009 terrapin nesting season (May – July), the researchers located 189 nests on the PIERP (Table 1, raw nest data provided in Appendix 1). Of these 189 nests, 145 successfully produced hatchlings and 34 nests were unsuccessful, of which predators destroyed 10 nests (Table 1). Twelve nests failed because the eggs did not develop or eggs were thin-shelled which results in nest failure.

YEAR	2002	2003	2004	2005	2006	2007	2008	2009
TOTAL NESTS	68	67	182	282	191	225	218	189
NESTS PRODUCED HATCHLINGS	38	50	129	176	112	166	180	145
NESTS THAT DID NOT SURVIVE	1	7	17	70	69	44	28	34
DEPREDATED (ROOTS OR ANIMAL)	0	0	12	46	54	18	12	10
WASHED OUT	1	6	3	11	13	2	6	3
UNDEVELOPED EGGS, WEAK SHELLED EGGS, OR DEAD EMBRYOS	0	1	0	12	1	19	10	12
DESTROYED BY ANOTHER TURTLE OR NEST WAS IN ROCKS	0	0	2	0	0	3	0	0
DESTROYED BY BULLDOZER	0	0	0	1	0	0	0	0
DEAD HATCHLINGS	0	0	0	0	1	2	0	2
FATE OF NEST UNKNOWN	29	10	36	36	10	19	10	10

Table 1 - Summary of the diamondback terrapin nests found and their fate on the PIERP from 2002 to 2009.

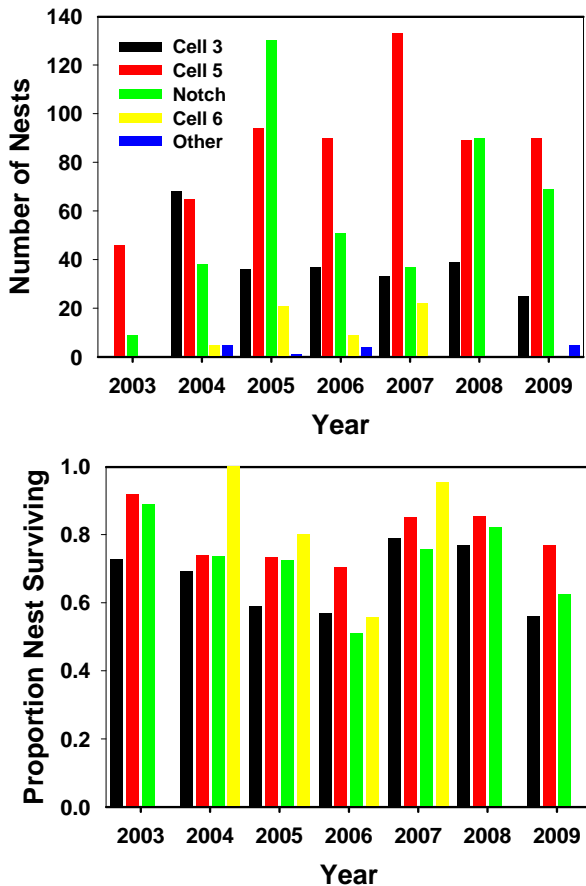


Figure 2 – The number of nests in each of the major nesting areas for each year of the study and the proportion of nests surviving

beach area is the most likely contributing factor to the decrease in nesting activity outside Cell 3C. Previously, that beach was continuous outside the dike from Cell 3B to Cell 1A; it now lies only in front of Cell 3C and in recent years, the nesting activity has declined. In 2009, there was a decrease in nesting activity in the Notch. One potential contributing factor to the decrease in nesting activity in the Notch is the restoration of beach habitat on the northwest corner of Coaches Island that occurred during the Spring and early Summer of 2009. This combined with an apparent increase in vegetation in the Notch may contribute to a shift in nesting on the newly constructed site on Coaches Island. Perhaps of greatest interest are the four nests in the other category. Researchers found 2 nests along the center dike between Cell 4DX and Cell 6, one nest on the dike between Cell 4DX and Cell 5, and 1 nest on the dike between Cell 4DX and Cell 3A (Figure 3). These nests were constructed by females that emerged from inside Cell 4DX and then nested in the higher sandy areas on the perimeter dike of Cell 4DX. This represents the strongest evidence to date that terrapins are using the wetlands and integrating into the project as it develops.

Three nests were lost due to inundation by the high tide or washed out due to heavy rains because the nest site was in an area of high erosion.

The number of terrapin nests on the PIERP has been consistent since 2006 averaging 205 nests per year (Table 1). During the fall of 2007, the perimeter dike closure resulted in eliminating access to nesting areas inside Cell 6 and consequently no nests have been found there since 2008 (Figure 2 and 3). However, two nests were found on the center dike between Cell 6 and Cell 4DX but these females emerged from Cell 4DX (Figure 3). Consistent with the closure of the perimeter dike of Cell 6, the number of nests in the Notch has increased suggesting that those females formerly nesting in Cell 6 still may be nesting on the PIERP (Figure 3).

Nesting activity outside of Cell 3B and 3C continues to diminish and has decreased by about 60% from its high in 2004. A major reduction in the available nesting habitat outside Cell 3B and 3C occurred after tidal flow was initiated into Cell 3D. The continued loss of nesting habitat and the diminishing size of the



Figure 3 – Terrapin nesting locations on the PIERP during 2009

Willetts (*Catoptrophorus semipalmatus*) and small mammals, most likely a shrew (*Blarina spp.*).

Researchers occasionally noted thin-shelled terrapin eggs on the PIERP. Thin-shelled eggs also have been observed in the Patuxent River terrapin population (Roosenburg, personal observation). Only a few eggs in a clutch may have thin shells, or it may affect the entire clutch. OU researchers have noted that in nests in which all of the eggs have thin shells, the eggs are frequently broken during oviposition and seldom hatch. The cause of the thin-shelled eggs is unknown at this time, but it is not unique to the PIERP. Two possible causes that remain to be evaluated include a toxicological effect by a factor ubiquitous in the Chesapeake Bay, or a resource limitation by the females to sequester sufficient amounts of calcium to shell the eggs.

Reproductive Output: Clutch size (Analysis of Variance; ANOVA, $F_{5,650} = 1.96$, $P > 0.05$),

Since 2006 researchers have placed hardware cloth in the sand over the nests to prevent crow predation. Although the actual number of nests that have been lost during the last three years have remained relatively similar (Table 1), nest survivorship decreased during 2009 because of an overall lower number of nests (Figure 2). During the summer of 2009, an Eastern kingsnake, *Lampropeltis getulus*, was actually discovered while eating a terrapin nest and upon capture regurgitated four terrapin eggs (see cover photo). Furthermore, from this experience the research team learned the pattern left by a kingsnake when it has depredated a nest, and can therefore confidently identify nests that were consumed by a snake (Figure 4). Other nest predators that have been observed on the PIERP include



Figure 4. A terrapin nest that had been eaten by a king snake. Note the telltale markings anterior in the lower half of the picture that were created while the snake burrowed into the nest.

Year	Clutch Size	Clutch Mass (g)	Egg Mass (g)
2004	13.68 (0.379)	127.55 (4.372)	9.80 (0.110)
2005	13.62 (0.245)	133.11 (2.541)	9.92 (0.087)
2006	13.48 (0.248)	133.28 (2.570)	9.97 (0.081)
2007	13.11 (0.241)	127.4 (2.502)	9.86 (0.086)
2008	12.90 (0.260)	128.0 (2.890)	10.06 (0.092)
2009	13.85 (0.242)	137.1 (2.335)	10.02 (0.091)

Table 2. Average and standard error of clutch size, clutch mass, and egg mass from 2004-2009 from the PIERP.

August 2009 and 31 March 2010 (Table 3). All hatchlings were caught at their nests. This includes the ringed nests and 13 nests not previously ringed that researchers found when the hatchlings emerged. Hatchling size was similar among all years of the study (Table 3). During 2002-2009, 9,161 hatchlings have been captured, tagged, and notched on the PIERP (Table 3). Hatchling production in 2009 was the fourth highest since the beginning of terrapin monitoring on the PIERP (Table 3). Since 2004, the number of hatchlings has been consistently greater than 1,000 animals per year. Only in 2006 when crows began preying upon nests frequently and no antipredator screens were used did the number of hatchlings drop substantially, to 855. The steady production of hatchlings since 2006 indicates that predation control is effective and that recruitment remains strong on the PIERP.

Over-wintering: OU researchers let 74 nests overwinter during the winter of 2009-2010. Of these 74 nests, 66 emerged and produced 527 hatchlings in the spring and 8 nests did not emerge (Table 4). Six of the nests that failed to emerge contained eggs that did

not develop, indicating that the eggs in these nests died during

clutch mass (ANOVA, $F_{5,650} = 2.04$, $P > 0.05$), and average egg mass (ANOVA, $F_{5,650} = 0.93$, $P > 0.05$) did not differ significantly from 2004 through 2009 (Table 2). Interestingly, since 2004 clutch size had been decreasing slightly but this increased by almost 1 from 2008 to 2009. During 2002 and 2003, researchers did not collect these data. These findings indicate that there is no difference in per-clutch reproductive output from one nesting season to the next.

Hatchlings: Researchers captured, tagged, and notched 1,430 terrapin hatchlings on the PIERP between 5

YEAR	NUMBER OF HATCHLINGS	MEAN CARAPACE LENGTH (MM)	MEAN MASS (G)
2002	565	31.28 (1.61)	7.52 (0.96)
2003	387	31.13 (1.50)	7.50 (0.99)
2004	1,337	31.57 (1.47)	7.61 (0.89)
2005	1,526	30.98 (1.94)	7.45 (1.10)
2006	855	30.95 (1.71)	7.38 (1.01)
2007	1,616	31.26 (1.72)	7.50 (0.91)
2008	1,443	31.03 (1.34)	7.42 (0.14)
2009	1,430	30.99 (1.83)	7.33 (0.99)
Total	9,161		

Table 3 - Number of hatchlings, mean and standard error of carapace length, and mean mass of terrapin hatchlings caught on the PIERP from 2002-2009.

	2006	2007	2008	2009
TOTAL NESTS - NOTCH & OUTSIDE OF CELL 5	146	170	183	159
DEPREDATED NESTS AND NESTS DESTROYED BEFORE FALL EMERGENCE	47 (32.2%)	18 (10.6%)	17 (9.3%)	12 (7.5%)
FALL EMERGING NESTS	49 (33.6%)	92 (54.1%)	113 (61.7%)	68 (42.8%)
NESTS OVER-WINTERING	44 (30.1%)	60 (35.3%)	44 (24.0%)	74 (46.5%)
SPRING EMERGING NESTS	33 (22.6%)	50 (29.4%)	40 (21.9%)	66 (41.5%)
OVER-WINTERING NESTS THAT DID NOT EMERGE	6 13.6%	4 (2.4%)	4 (2.2%)	8 (5.0%)
UNKNOWN NESTS	11 (7.5%)	6 (3.5%)	9 (4.9%)	5 (3.1%)
BOTH FALL & SPRING EMERGING NESTS	1 (0.7%)	0 (0%)	1 (0.5%)	4 (2.5%)

Table 4 – Nest fate and over-wintering percentage of the nests during the 2006 – 2009 nesting seasons on the PIERP.

development through the summer and death was not caused by overwintering mortality. Also of interest was that 4 nests had hatchlings emerging in both the fall and the spring. There was a 15% increase in the number of overwintering nests and a concomitant drop in fall emerging nests. Researchers are uncertain what factors contributed to the increase in overwintering nests.

Researchers also PIT tagged terrapins that were part of the AE, NAIB, MES and HPL headstart programs. Researchers tagged and processed 251 terrapins in April and July 2010 (Appendix 4). Two to eight weeks following the PIT tagging, the hatchlings were transported to the PIERP and were released in the Notch area. Two AE hatchlings died accidentally during the rearing phase of the project and one died shortly after the endoscopic surgery, most likely as a result of the procedure.

Finally, researchers captured 15 females and 4 Juvenile terrapins on the PIERP during the summer of 2009 (Appendix 3).

CONCLUSIONS

The number of terrapin nests discovered by the research team during 2009 was comparable to the previous 4 years despite the closing of Cell 6, which reduced access to interior nesting sites on the PIERP. During the last five years, researchers have averaged 200 nest discoveries per year, suggesting that the adult female population using the PIERP for nesting is probably between 70-100 adult females. This estimate is based on a maximum reproductive output of three clutches per year per female, as has been observed in the Patuxent River population (Roosenburg and Dunham, 1997). Our preliminary population estimate of almost 250 adult females is consistent with this observation. Additionally, the 2009 nesting season resulted in 1,430 hatchlings (total of both fall 2009

and spring 2010 emerging nests). The number of hatchlings has remained both high and stable because of the predator control method of placing hardware cloth over the nest to deter crows. The 2009-2010 over-wintering nest survival increased by approximately 15% and was comparable to the previous winters. The number of nests appears to have stabilized during the last five years, suggesting that the number of adult females in the archipelago is stable.

During 2009, the researchers conducted twice daily surveys of the nesting areas. This was possible because one researcher was dedicated full-time to locating terrapin nests and three other OU researchers assisted him throughout the nesting season. The researchers discovered two nests by noting hatchlings emerging after the nesting season had ended, and found additional nests in the spring of 2010 by emergence holes that were excavated. Many of these nests were probably laid over the weekend when nesting surveys could not be completed.

The PIERP has provided excellent nesting habitat since the completion of the perimeter dike. Nest survivorship remains high on the PIERP relative to the Patuxent River mainland population (Roosenburg, 1991). Fortunately, the decrease in nest survivorship observed during 2005 and 2006 at the PIERP was reversed by the preemptive use of hardware cloth laid over the nest to deter predation by crows. Of greater interest was the discovery of a kingsnake in the process of eating a terrapin nest. A snake was previously suspected of eating terrapin nests, but there was no absolute evidence that this was true. In the summer of 2009 the capture of a kingsnake that regurgitated four terrapin eggs confirmed this behavior. Based on this observation researchers can confirm predation by kingsnakes of terrapin nests, nonetheless the frequency of predation is low. As a consequence, the nest survival rate on the PIERP remained high at 81.0% during 2009 relative to mainland populations that averaged nest survival rates of 1-3%.

Raccoons, foxes, and otters are known terrapin nest predators and contribute to low nest survivorship in areas where these predators occur, sometimes depredating 95% of the nests (Roosenburg, 1994). The lack of raccoons on the PIERP also minimizes the risk to nesting females (Seigel, 1980; Roosenburg, pers. obs.). The absence of efficient nest and adult predators on the PIERP generated nest and adult survivorship rates that are much higher compared to similar nesting areas with efficient predators. As was similarly observed in 2002 through 2007 (Roosenburg and Allman, 2003; Roosenburg and Sullivan, 2006; Roosenburg and Trimbath, 2010; Roosenburg et al., 2004; 2005; 2007; 2008), the nest survivorship on the PIERP continues to be higher relative to mainland populations because of the lack of nest predators. The lack of predators and nest protection practices are resulting in strong hatchling recruitment from the PIERP.

As observed during the summers of 2002 through 2008 (Roosenburg and Allman, 2003; Roosenburg and Sullivan, 2006; Roosenburg and Trimbath, 2010; Roosenburg et al., 2004; 2007; 2008), terrapin nesting on the PIERP occurred in areas where terrapins could easily access potential nesting sites. During the summers of 2008-2009 female terrapins no longer had access into Cell 6 because it was closed off in the fall of 2007 to

prepare for dredged material placement, following the final PIERP Phase II dike construction. This resulted in the loss of a substantial amount of nesting habitat for terrapins. Although nesting was dispersed in Cell 6, there were typically between 20-30 nests per year in this area. In 2008 and 2009, researchers found almost the same number of nests as in 2007, suggesting that some of the turtles that nested in Cell 6 were nesting in the remaining nesting areas on the PIERP, the beach areas along the exterior dike of Cells 3 and 5, and the Notch. Given the high concentration of nesting in the remaining areas, the development of new nesting areas becomes a critical issue for growth in terrapin nesting activity on the PIERP. As wetland cells are completed, and the exterior dikes are breached to provide tidal flow, terrapins are likely to follow and begin nesting on interior parts of the island. Indeed, for the first time researchers discovered nests in Cell 4DX, and the females that produced those nests had emerged from within the cell.

The PIERP produced 1,430 hatchlings during the 2009 nesting season. Hatchlings started emerging from the nests on 5 August 2009; the last hatchlings were excavated on 30-31 March 2010. Researchers released all of the hatchlings in Cell 4DX and Cell 3D, and the recently completed Cell 1A, however many of the hatchlings released in September and October 2009 clearly preferred to stay on land as opposed to remaining in the water.

During the winter of 2009-2010, a significant number of nests over-wintered successfully. The recovery of 527 hatchlings from 66 of the 74 over-wintering nests confirms over-wintering as a successful strategy used by some terrapin hatchlings. Continued studies of over-wintering and spring emergence will be conducted to better understand the effect of over-wintering on the terrapin's fitness, life cycle, and natural history. The PIERP offers a wonderful opportunity to study terrapin over-wintering because of the large number of nests that survive predation.

The educational program conducted in collaboration with the AE Outdoor Education Center, the NAIB, HPL and MES successfully headstarted the terrapins. Students increased the size of the hatchlings they raised to sizes characteristic of 2-5 year old terrapins in the wild. All hatchlings were PIT tagged to determine the fate of these hatchlings in the future through the continued mark-recapture study. During the summer of 2009 the study that compares survivorship of naturally released hatchlings versus headstart animals was initiated.

The initial success of terrapin nesting on the PIERP indicates that similar projects also may create suitable terrapin nesting habitat. Although measures are taken on the PIERP to protect nests, similar habitat creation projects should have high nest success until raccoons or foxes colonize the project. Throughout their range, terrapin populations are threatened by loss of nesting habitat to development and shoreline stabilization (Roosenburg, 1991; Siegel and Gibbons, 1995). Projects such as the PIERP combine the beneficial use of dredged material with ecological restoration, and can create habitat similar to what has been lost to erosion and human practices. With proper management, areas like the PIERP may become areas of concentration for species such as terrapins, thus becoming source populations for the recovery of terrapins throughout the Bay.

The PIERP FMD identifies three purposes for the terrapin monitoring program. The first purpose is to monitor terrapin nesting activity and habitat use to quantify terrapin activity on the PIERP. The current monitoring program is detailing widespread use of the island by terrapins, evidenced by a comparable number of nests found relative to mainland sites in the Patuxent River as well as the 2006 recovery of a hatchling terrapin marked on the PIERP in 2004. The second purpose is to determine the suitability of the habitat for terrapin nesting. The high nest success and hatching rates on the PIERP indicate the island provides high quality terrapin nesting habitat, albeit limited in availability because of the rock perimeter dike around most of the island. The third purpose is to determine if the project is affecting terrapin population dynamics. Although a mark-recapture study was initiated in 2009, the findings of this work remain preliminary and a multiyear data set is necessary to reach well supported conclusions concerning the status of the PIERP terrapin population. The suitability of wetland creation as juvenile habitat remains to be determined because no trapping has yet occurred in the interior of wetland cells. However, the emergence of females from Cell 4DX and nesting on the nearby dike suggests that the wetlands cells do provide suitable terrapin habitat. The success of nesting activity on the PIERP over the past eight years is positive. However, nesting surveys monitor one segment of the life cycle of the long-lived terrapin, and in the upcoming years we hope to begin recovering some of the individuals that originated from the PIERP.

The PIERP FMD also identifies three hypotheses for the terrapin monitoring program. Hypothesis one is that there will be no change in the number of terrapin nests or the habitat used from year to year. The consistency in the number of nests from 2004-2009 indicates that there has been little change in the number of terrapin nests at PIERP, supporting the hypothesis. Hypothesis two states that nest and hatchling survivorship and sex ratio will not differ between Poplar Island and reference sites. This hypothesis is rejected as nest success and hatchling survivorship is much higher on the PIERP because of the lack of major nest predators. Similarly, the sex ratio is highly female biased. Hypothesis three states that there will be no change in terrapin population size on Poplar Island; particularly within cells from the time the cells are filled, throughout wetland development, and after completion and breach of the retaining dike. The status of this hypothesis remains undetermined as there is not enough data currently to form a conclusion.

RECOMMENDATIONS

Terrapins will continue to use the PIERP for nesting. However, some short and long-term measures can be taken to improve nesting habitat on the island. Furthermore, the uncertain success of both hatchlings and headstarted individuals warrants continued investigation to evaluate the causes of this preliminary unexpected finding. In this regard, future terrapin research and management on the PIERP will be landmark in understanding how terrapins respond to ecological restoration such as the PIERP, but will also help to improve terrapin management and conservation strategies. The following recommendations are suggested with these goals in mind.

First, the northeast expansion of the PIERP, scheduled to be implemented in 2012, provides the opportunity to create more terrapin nesting habitat in the sheltered areas of Poplar Harbor. In particular, areas to be built to the northeast of Jefferson Island would be ideal for creating terrapin nesting habitat. The creation of these nesting areas could help offset the loss of nesting habitat that has occurred on the outside of Cell 3B and 3C in recent years.

Although this area is proposed to be an upland cell, the creation of

offshore bulkheads and backfilling of sand as illustrated in Figure 5 could provide a large amount of terrapin nesting habitat in an area where terrapins have been captured in high concentrations. Building structures such as those illustrated in Figure 5 on the outside of the barrier dike would preclude the need to build additional fencing to prevent turtles from getting into the cells under construction. Furthermore, nesting areas without marsh and beach grasses could be provided for terrapin nesting habitat within the cells under construction. Because terrapins avoid nesting in areas with dense vegetation (Roosenburg 1996), providing open, sandy areas on the seaward side of the dikes should reduce efforts by terrapins to enter cells under construction to find suitable, open areas.

Second, predator control on the island will be paramount to the continued success of terrapin recruitment. Minimizing raccoon and fox populations will maintain the high levels of nest survivorship observed in 2002 through 2008. The increase in nest success due to screens over the nests is also an effective mechanism to reduce crow predation. A sustained program to eliminate mammalian predators and prevent avian predation will facilitate continued terrapin nesting success on the PIERP.

Third, OU researchers should continue to investigate hatchling over-wintering on the PIERP, a study aided by the high nest survivorship on the PIERP.

Fourth, the continuation and the expansion of the mark-recapture study, funded by external agencies (terrapin working group, MD-DNR etc.), to develop a more robust data set to evaluate the changes in the terrapin population that may be occurring around the island. A particular emphasis should be made to investigate those factors that are



Figure 5 – Shoreline stabilization and the creation of terrapin nesting habitat in Calvert County Maryland – Red dots indicate terrapin nests.

affecting the survival of juvenile terrapins in the Poplar Island archipelago. The use of sonic telemetry to actively track juvenile terrapins and determine their fate may be an effective tool to identify factors that decrease juvenile survivorship.

Finally, efforts to promote the use of by-catch reduction devices (BRDs) on crab pots fished in and around the PIERP archipelago will increase juvenile and adult survivorship. Crab pots drown terrapins and can have dramatic effects on their populations (reviewed in Roosenburg 2004). OU researchers have conducted a BRD research program and had an ongoing dialogue with MD-DNR about instituting the use of BRDs in the commercial fishery. Instituting such a conservation program would be consistent with regulation to close the commercial terrapin fishery. Promoting or requiring the use of BRDs in the PIERP archipelago could greatly reduce the mortality of juvenile female and male terrapins and the PIERP may be an excellent opportunity to initiate such a program in an experimental context. The five recommendations above offered by OU will contribute to the continuing and increasing understanding of the effect of the PIERP on terrapin populations.

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Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
001	1-Jun-09	N38 45.191	W76 22.444	Notch	Sun	Edge	14	143	10.19	14	
002	1-Jun-09	N38 45.128	W76 22.482	Notch	Sun	Edge	9	109	12.09	0	
003	1-Jun-09	N38 45.083	W76 22.374	Notch	Sun	Edge	14	123	8.81	0	
004	1-Jun-09	N38 45.074	W76 22.279	5N	Sun	Edge	15	134	9.55	14	One egg broken bc. Laid near surface.
005	1-Jun-09	N38 45.005	W76 22.103	5S	Sun	Open	14	165	11.79	13	One failed egg when excavated 20 Aug.
006	1-Jun-09	N38 45.003	W76 22.095	5S	Sun	Open	11	117	10.59	11	
007	1-Jun-09	N38 44.969	W76 22.019	5S	Sun	Open	13	136	10.44	13	
008	2-Jun-09	N38 45.021	W76 22.188	5Mid	Sun	Edge	10	103	10.25	6	4 failed eggs when excavated 22 Sept.
009	2-Jun-09	N38 45.093	W76 22.312	5N	Sun	Edge				2	Partially depredated by king snake; found snake with head in nest; 5 intact eggs; 4 eggs regurgitated by snake. 2 failed eggs when excavated 28 Sept
010	2-Jun-09	N38 45.098	W76 22.349	Notch	Sun	Edge	14	140	10.02	6	
011	2-Jun-09	N38 45.626	W76 22.785	3	Sun	Open				0	Old nest, not excavated. Flooded by high tide 18 June, Partially destroyed by tide 20 July.
012	2-Jun-09	N38 45.641	W76 22.795	3	Sun	Open	11	118	10.73	9	
013	2-Jun-09	N38 45.273	W76 22.902	between	Sun	Open	16	171	10.68	16	
014	3-Jun-09	N38 45.638	W76 22.790	3	Sun	Open	13	142	10.92	5	8 failed eggs when excavated 17 Aug. due to roots growing through nest. Error reading temp logger data, could not recover temp data.
015	3-Jun-09	N38 45.629	W76 22.788	3	Sun	Open	15	171	11.37	0	Possibly flooded by tide 18 June. 1 failed egg, all other hatchlings escaped through rocks below sand 27 Aug.
016	3-Jun-09	N38 45.089	W76 22.310	5S	Sun	Edge				7	Old nest, not excavated.
017	3-Jun-09	N38 45.012	W76 22.114	5N	Sun	Edge	11	116	10.55	9	2 failed eggs when excavated 10 Sept.
018	3-Jun-09	N38 45.011	W76 22.126	5Mid	Sun	Edge	14	134	9.55	8	6 failed eggs due to roots through nest. 1 dead hatchling in nest when excavated 2 Sept.
019	3-Jun-09	N38 44.983	W76 22.051	5S	Sun	Open	10	101	10.06	10	Didn't get bottom measurement in rush to replace eggs into nest to escape hot sun.
020	4-Jun-09	N38 45.631	W76 22.791	3	Sun	Open	14	138	9.84	0	Possibly flooded by tide 18 June. Fully destroyed by tide 20 July.
021	4-Jun-09	N38 45.074	W76 22.453	Notch	Sun	Edge				0	Nest found completely destroyed, eggshells found 0.5 m from nest.
022	4-Jun-09	N38 45.068	W76 22.456	Notch	Sun	Edge	11	116	10.57	9	

Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
023	4-Jun-09	N38 45.092	W76 22.362	Notch	Sun	Edge	15	139	9.26	9	
024	4-Jun-09	N38 45.038	W76 22.188	5Mid	Sun	Edge	11	104	9.42	3	7 failed eggs when excavated 21 Sept.
025	8-Jun-09	N38 45.625	W76 22.786	3	Sun	Open				2	Old nest, not excavated. Possibly flooded by high tide 18 June. One failed egg when excavated 17 Aug.
026	8-Jun-09	N38 45.669	W76 22.810	3	Sun	Open	13	129	9.92	0	Possibly flooded by high tide 18 June. 2 failed eggs, 11 washed away when excavated 12 Oct.
027	8-Jun-09	N38 45.661	W76 22.807	3	Sun	Open	13	154	11.85	9	Possibly flooded by high tide 18 June. 3 failed eggs when excavated 17 Sept. 1 still developing egg; brought fetus back to shed- attempting to incubate.
028	8-Jun-09	N38 45.642	W76 22.796	3	Sun	Open	13	147	12.22	11	1 egg broken in excavation. 1 hatching emerged, found dead 10 Aug. 09. 5 hatchlings escaped through hole in ring 17 Aug. 09.
029	8-Jun-09	N38 45.119	W76 22.486	Notch	Sun	Edge	15	143	9.53	14	1 failed egg when excavated 2 Sept.
030	8-Jun-09	N38 45. 113	W76 22.479	Notch	Sun	Edge	11	114	10.35	1	
031	8-Jun-09	N38 45.034	W76 22.467	Notch	Sun	Edge	11	119	10.81	5	6 failed eggs when excavated 9 Sept.
032	8-Jun-09	N38 45.074	W76 22.458	Notch	Sun	Edge				8	Old nest, not excavated. 3 failed eggs when excavated 9 Sept.
033	8-Jun-09	N38 45.065	W76 22.423	Notch	Sun	Edge				4	Stopped digging due to weak shells. Nest depredated 9 June, predator unknown. At least 3 eggs destroyed, some remaining, nest covered back up. 2 failed eggs when excavated 28 Sept.
034	8-Jun-09	N38 45.071	W76 22.899	Notch	Sun	Edge	16	146	9.10	6	
035	8-Jun-09	N38 45.071	W76 22.398	Notch	Sun	Edge	13	126	9.69	6	
036	8-Jun-09	N38 45.073	W76 22.389	Notch	Sun	Edge	14	143	10.24	13	2 failed eggs when excavated 15 Sept.
037	8-Jun-09	N38 45.099	W76 22.337	5N	Sun	Edge				0	Partially depredated by king snake 8 June, two eggs remaining.
038	8-Jun-09	N38 45.097	W76 22.331	5N	Sun	Edge	18	119	6.63	14	Small eggs. 3 failed eggs when excavated 21 Sept
039	8-Jun-09	N38 45.077	W76 22.310	5N	Sun	Edge				3	Old nest, not excavated.
040	8-Jun-09	N38 45.077	W76 22.284	5N	Sun	Edge	15	164	10.92	0	
041	8-Jun-09	N38 45.078	W76 22.284	5N	Sun	Edge	11	109	9.87	9	
042	8-Jun-09	N38 45.070	W76 22.261	5Mid	Sun	Edge	14	156	11.11	6	
043	8-Jun-09	N38 45.054	W76 22.225	5Mid	Sun	Edge	11	120	10.95	6	5 failed eggs when excavated 27 Aug.

Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
044	8-Jun-09	N38 45.048	W76 22.215	5Mid	Sun	Edge				0	Not excavated, old nest.
045	8-Jun-09	N38 45.037	W76 22.186	5Mid	Sun	Edge	15	154	10.28	11	3 failed eggs when excavated 10 Sept.
046	8-Jun-09	N38 45.029	W76 22.165	5Mid	Sun	Edge				10	Not excavated, old nest. 2 failed eggs when excavated 13 Oct.
047	8-Jun-09	N38 45.033	W76 22.175	5Mid	Sun	Edge	15	132	8.79	13	
048	8-Jun-09	N38 45.012	W76 22.123	5Mid	Sun	Edge	12	117	9.78	7	5 failed eggs when excavated 10 Sept.
049	8-Jun-09	N38 45.007	W76 22.111	5S	Sun	Open				2	2 broken eggs; weak shells- stopped excavating partly through.
050	8-Jun-09	N38 45.006	W76 22.113	5S	Sun	Open	12	113	9.43	12	
051	8-Jun-09	N38 44.937	W76 22.067	5S	Sun	Open	5	53	10.62	2	Small clutch.
052	8-Jun-09	N38 44.988	W76 22.055	5S	Sun	Open	13	117	9.03	12	
053	8-Jun-09	N38 44.969	W76 22.009	5S	Sun	Open	17	176	10.37	15	
054	8-Jun-09	N38 44.967	W76 22.013	5S	Sun	Open	14	131	9.35	11	
055	8-Jun-09	N38 44.957	W76 21.992	5S	Sun	Open	17	143	8.39	16	Almost on road. 1 failed egg when excavated 13 Oct.
056	9-Jun-09	N38 45.150	W76 22.471	Notch	Sun	Edge				16	Not excavated, old nest.
057	9-Jun-09	N38 45.119	W76 22.484	Notch	Sun	Edge	15	140	9.32	15	1 failed egg when excavated 22 Sept.
058	9-Jun-09	N38 45.077	W76 22.425	Notch	Sun	Edge	15	148	9.87	9	1 failed egg when excavated 15 Sept.
059	10-Jun-09	N38 45.073	W76 22.387	Notch	Sun	Edge				13	Stopped excavating after 8 eggs due to large white spot on 9th egg. Possibly 2 nests beside each other. 3 failed eggs when excavated 10 Sept.
060	10-Jun-09	N38 44.960	W76 21.996	5S	Sun	Edge	12	120	9.96	0	
061	11-Jun-09	N38 45.081	W76 22.376	Notch	Sun	Edge				10	Not excavated, old nest.
062	11-Jun-09	N38 45.030	W76 22.169	5Mid	Sun	Edge	11	130	11.80	9	2 failed eggs when excavated 29 Oct
063	12-Jun-09	N38 45.071	W76 22.272	5N	Sun	Edge	14	145	10.38	0	
064	15-Jun-09	N38 45.652	W76 22.803	3	Sun	Open	14	146	10.39	12	
065	15-Jun-09	N38 45.189	W76 22.440	Notch	Sun	Edge	15	153	10.21	0	Depredated 16 June, by snake. All eggs consumed, no shells remaining. Temp logger still present.
066	15-Jun-09	N38 45.150	W76 22.469	Notch	Sun	Edge	14	140	9.99	14	
067	15-Jun-09	N38 45.074	W76 22.382	Notch	Sun	Edge	19	178	9.35	26	

Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
068	15-Jun-09	N38 45.087	W76 22.306	5N	Sun	Edge				0	Old nest, not excavated. Depredated by snake, 16 June. At least one egg removed, broken. Left remaining eggs, covered nest back up. Pink balloon found, although no temp logger was originally present (?).
069	15-Jun-09	N38 44.999	W76 22.096	5S	Sun	Edge	15	122	8.15	15	
070	16-Jun-09	N38 45.069	W76 22.408	Notch	Sun	Edge	19	197	10.35	17	Could not get top measurements. 1 failed egg when excavated 22 Sept.
071	16-Jun-09	N38 45.081	W76 22.375	Notch	Sun	Edge				11	Stopped excavating after 5 eggs bc. Of chalky white spots.
072	16-Jun-09	N38 45.086	W76 22.367	Notch	Sun	Edge	14	137	9.79	14	
073	17-Jun-09	N38 45.216	W76 22.423	Notch	Sun	Edge				12	Not excavated, old nest.
074	18-Jun-09	N38 45.108	W76 22.478	Notch	Sun	Edge	13	121	9.28	13	Implanted 2 eggs from fyke netted turtles- laid 16 June, kept incubated in moist sand ~48 hours. 2 failed eggs when excavated 29 Sept.
075	18-Jun-09	N38 45.002	W76 22.104	5S	Sun	Edge	15	160	10.67	13	Some eggs had soft shells.
076	19-Jun-09	N38 45.648	W76 22.803	3	Sun	Open	14	143	10.19	12	One bean shaped egg. 2 failed eggs when excavated 1 Sept. One live hatchling has deformed shell (bean egg?)
077	19-Jun-09	N38 45.652	W76 22.806	3	Sun	Open	15	140	10.74	13	Didn't weigh 2 eggs bc. White spots were seen. 2 failed eggs when excavated 1 Sept.
078	19-Jun-09	N38 45.660	W76 22.808	3	Sun	Open	19	179	9.44	16	3 failed eggs when excavated 12 Oct
079	19-Jun-09	N38 45.073	W76 22.451	Notch	Sun	Edge	12	124	10.34	0	Found female finishing laying nest. Nest found destroyed 22 June; mammalian predator.
080	19-Jun-09	N38 45.080	W76 22.378	Notch	Sun	Edge				12	Old nest, not excavated.
081	19-Jun-09	N38 45.097	W76 22.333	5N	Sun	Vegetatic	15	136	9.09	15	
082	19-Jun-09	N38 45.085	W76 22.304	5N	Sun	Edge				13	Old nest, not excavated.
083	19-Jun-09	N38 45.067	W76 22.446	Notch	Sun	Edge	13	133	10.23	0	Witnessed female laying, covering eggs. Partially depredated 20 July.
084	22-Jun-09	N38 45.112	W76 22.479	Notch	Sun	Edge				0	Stopped digging bc eggs had white chalky spots. Fully depredated 20 July, kingsnake.
085	22-Jun-09	N38 45.076	W76 22.282	5N	Sun	Edge				9	Stopped excavating, old nest.
086	22-Jun-09	N38 45.064	W76 22.254	5N	Sun	Edge	13	131	10.08	10	

Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
087	22-Jun-09	N38 45.030	W76 22.175	5N	Sun	Edge	12	114	9.53	12	Egg put in with this nest. 1 failed egg when excavated 1 Sept.
088	22-Jun-09	N38 45.029	W76 22.169	5N	Sun	Edge				16	Old nest, not excavated.
089	22-Jun-09	N38 44.985	W76 22.058	5S	Sun	Edge				5	Old nest, not excavated.
090	22-Jun-09	N38 44.967	W76 22.017	5S	Sun	Edge	16	154	10.29	3	1 egg broken.
091	22-Jun-09	N38 44.966	W76 21.989	5S	Sun	Open				14	Old nest, not excavated.
092	23-Jun-09	N38 45.071	W76 22.400	Notch	Sun	Edge	5	53	10.64	0	
093	23-Jun-09	N38 45.072	W76 22.394	Notch	Sun	Edge	11	106	9.65	6	
094	23-Jun-09	N38 45.086	W76 22.369	Notch	Sun	Edge	11	120	10.88	6	2 failed eggs when excavated 22 Sept.
095	23-Jun-09	N38 45.072	W76 22.275	5N	Sun	Edge	14	125	8.90	14	
096	23-Jun-09	N38 45.069	W76 22.267	5N	Sun	Open	14	114	8.13	4	
097	23-Jun-09	N38 45.089	W76 22.474	Notch	Sun	Edge				2	Stopped digging bc eggs had white chalky spots.
098	23-Jun-09	N38 45.148	W76 22.474	Notch	Sun	Edge	12	112	9.32	0	
099	23-Jun-09	N38 45.103	W76 22.360	Notch	Sun	Edge	16	108	7.17	7	One broken egg found in nest. Soft shells.
100	23-Jun-09	N38 45.638	W76 22.794	3	Sun	Open				2	Old nest, not excavated. 2 failed eggs when excavated 1 Sept.
101	24-Jun-09	N38 45.220	W76 22.419	Notch	Sun	Edge	15	154	10.23	0	Found turtle just after covering nest.
102	24-Jun-09	N38 45.203	W76 22.430	Notch	Sun	Edge	15	158	10.53	0	
103	24-Jun-09	N38 45.083	W76 22.465	Notch	Sun	Edge	16	157	9.83	15	
104	24-Jun-09	N38 45.075	W76 22.454	Notch	Sun	Edge	20	180	8.99	17	
105	24-Jun-09	N38 45.072	W76 22.448	Notch	Sun	Edge	16	171	10.71	4	
106	24-Jun-09	N38 45.038	W76 22.186	5Mid	Sun	Edge	16			13	Soft shells, did not weigh entire clutch. 3 failed eggs when excavated 17 Sept.
107	24-Jun-09	N38 45.011	W76 22.125	5S	Sun	Edge	16	150	9.38	9	
108	24-Jun-09	N38 45.007	W76 22.109	5S	Sun	Edge	15	141	9.43	12	3 failed eggs when excavated 28 Sept.
109	25-Jun-09	N38 45.020	W76 22.142	5Mid	Sun	Edge	16	153	9.55	7	
110	25-Jun-09	N38 45.127	W76 22.475	Notch	Sun	Edge				10	Old nest, not excavated.
111	25-Jun-09	N38 45.660	W76 22.807	3	Sun	Edge	11	110	9.96	10	1 failed egg when excavated 20 Oct.
112	25-Jun-09	N38 45.007	W76 22.086	5S	Sun	Edge				10	Stopped digging bc of white chalky spots.
113	26-Jun-09	N38 45.139	W76 22.480	Notch	Sun	Edge	18	159	8.84	17	1 failed egg when excavated 9 Sept.
114	26-Jun-09	N38 45.127	W76 22.482	Notch	Sun	Edge	16	150	9.36	4	Partial predation 29 June- unknown how many eggs are left.
115	26-Jun-09	N38 45.093	W76 22.479	Notch	Sun	Edge				12	Old nest, not excavated.
116	26-Jun-09	N38 45.068	W76 22.411	Notch	Sun	Edge				17	Old nest, not excavated.

Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
117	26-Jun-09	N38 45.070	W76 22.419	Notch	Sun	Edge	13	120	9.21	9	
118	26-Jun-09	N38 45.091	W76 22.320	5N	Sun	Edge				0	Nest depredated by kingsnake, eggs destroyed.
119	26-Jun-09	N38 45.082	W76 22.300	5N	Sun	Edge				13	Old nest, not excavated.
120	26-Jun-09	N38 45.050	W76 22.220	5N	Sun	Edge				15	Turtle found on nest- PI1009. Very soft eggs, stopped excavating. 1 failed egg when excavated 1 Oct.
121	26-Jun-09	N38 45.022	W76 22.143	5Mid	Sun	Edge	19	181	9.50	13	6 failed eggs when excavated 10 Sept.
122	29-Jun-09	N38 45.096	W76 22.327	5N	Sun	Edge				0	Old nest, not excavated.
123	29-Jun-09	N38 45.092	W76 22.321	5N	Sun	Edge				6	Old nest, not excavated.
124	29-Jun-09	N38 44.997	W76 22.102		Sun	Edge				16	Old nest, not excavated.
125	29-Jun-09	N38 45.070	W76 22.398	Notch	Sun	Edge				7	Old nest, not excavated. Partially depredated 14 July. 7 failed eggs when excavated 9 Sept due to roots through nest.
126	30-Jun-09	N38 45.028	W76 22.156	5Mid	Sun	Edge				0	Old nest, not excavated. Partially depredated by kingsnake 1 July. Remaining eggs left.
127	30-Jun-09	N38 44.968	W76 21.999	5S	Sun	Open				0	Old nest, not excavated.
128	30-Jun-09	N38 44.964	W76 21.998	5S	Sun	Open	13	134	10.33	13	
129	30-Jun-09	N38 45.108	W76 22.480	Notch	Sun	Edge				18	Eggs starting to turn white, not excavated. 3 failed eggs when excavated 17 Sept.
130	1-Jul-09	N38 45.079	W76 22.290	5N	Sun	Edge	14	133	9.52	0	Witnessed kingsnake w/head in nest, possibly ate some eggs.
131	1-Jul-09	N38 45.211	W76 22.424	Notch	Sun	Edge				0	Old nest, not excavated. Fully destroyed by kingsnake 2 July.
132	2-Jul-09	N38 45.644	W76 22.801	3	Sun	Open	12	155	12.93	6	One egg possibly cracked. Ants all over nest. 6 failed eggs when excavated 6 Oct.
133	2-Jul-09	N38 44.968	W76 22.018	5S	Sun	Edge	15	163	10.88	15	
134	2-Jul-09	N38 45.088	W76 22.310	5N	Sun	Edge	14	139	9.90	0	Destroyed(?)
135	2-Jul-09	N38 45.106	W76 22.478	Notch	Sun	Edge				11	Old nest, not excavated.
136	2-Jul-09	N38 45.106	W76 22.480	Notch	Sun	Edge	14	148	10.59	0	Soft shells. Completely depredated 23 July by kingsnake.
137	6-Jul-09	N38 45.668	W76 22.792	3	Sun	Open				14	Old nest, not excavated. On beach possibly below tide line.
138	6-Jul-09	N38 45.648	W76 22.796	3	Sun	Open				9	Old nest, not excavated.
139	6-Jul-09	N38 45.134	W76 22.480	Notch	Sun	Edge				8	Old nest, not excavated.

Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
140	6-Jul-09	N38 45.092	W76 22.479	Notch	Sun	Edge	17	185	10.89	6	
141	7-Jul-09	N38 45.071	W76 22.413	Notch	Sun	Edge				0	Possibly depredated by kingsnake or (more likely) possibly small clutch due to interruption. Partially depredated by kingsnake 20 July.- Destroyed 20 July
142	7-Jul-09	N38 45.084	W76 22.086	Notch	Sun	Edge	17	181	10.62	0	Partially depredated 3 Aug. by unknown. Some eggs remaining.
143	7-Jul-09	N38 45.080	W76 22.285	5N	Sun	Edge	14	128	9.15	12	
144	7-Jul-09	N38 45.006	W76 22.108	5S	Sun	Edge	15	147	9.82	11	
145	8-Jul-09	N38 45.293	W76 22.890	4Dx	Sun	Open	15	138	9.22	15	
146	8-Jul-09	N38 45.661	W76 22.802	3	Sun	Open				9	Old nest, not excavated.3 failed eggs when excavated 12 Oct.
147	9-Jul-09	N38 45.073	W76 22.247	5N	Sun	Edge	15	149	9.94	14	1 failed egg when excavated 5 Oct
148	10-Jul-09	N38 45.049	W76 22.216	5Mid	Sun	Edge				16	Old nest, not excavated. 1 failed egg when excavated 5 Oct.
149	10-Jul-09	N38 45.045	W76 22.207	5Mid	Sun	Edge				12	Old nest, not excavated.
150	10-Jul-09	N38 45.010	W76 22.119	5Mid	Sun	Edge	13	136	10.45	10	1 failed egg when excavated 5 Oct. 2 more failed eggs excavated 13 Oct.
151	13-Jul-09	N38 45.151	W76 22.471	Notch	Sun	Edge				0	Old nest, not excavated. Destroyed.
152	13-Jul-09	N38 45.092	W76 22.479	Notch	Sun	Edge				0	Old nest, not excavated.
153	13-Jul-09	N38 45.071	W76 22.449	Notch	Sun	Edge				6	Old nest, not excavated.
154	13-Jul-09	N38 45.094	W76 22.329	5N	Sun	Edge				6	Old nest, not excavated.
155	13-Jul-09	N38 45.087	W76 22.311	5N	Sun	Edge				11	Old nest, not excavated.
156	13-Jul-09	N38 45.085	W76 22.306	5N	Sun	Edge				3	Old nest, not excavated.
157	13-Jul-09	N38 45.081	W76 22.269	5N	Sun	Edge				8	Old nest, not excavated.
158	13-Jul-09	N38 45.073	W76 22.277	5N	Sun	Edge				2	Old nest, not excavated.
159	13-Jul-09	N38 45.051	W76 22.226	5Mid	Sun	Edge				10	Old nest, not excavated.1 failed egg when excavated 13 Oct.
160	13-Jul-09	N38 45.040	W76 22.200	5Mid	Sun	Edge				13	Old nest, not excavated. 1 failed egg when excavated 5 Oct.
161	13-Jul-09	N38 45.010	W76 22.121	5Mid	Sun	Edge				11	Old nest, not excavated. 1 failed egg when excavated 23 Sept.
162	13-Jul-09	N38 44.992	W76 22.065	5S	Sun	Edge				9	Old nest, not excavated.
163	13-Jul-09	N38 45.660	W76 22.806	3	Sun	Open				13	old nest, not excavated.

Nest	Date	Latitude	Longitude	Cell #	Exposure	Area	Clutch Size	Total Mass	Mean Egg Mass	Hatchlings	Comments
164	14-Jul-09	N38 45.065	W76 22.429	Notch	Sun	Edge				9	Old nest, not excavated.
165	14-Jul-09	N38 45.001	W76 22.101	5S	Sun	Open	15	138	9.84	13	One egg didn't get weighed. 2 failed eggs when excavated 29 Oct
166	17-Jul-09	N38 44.973	W76 22.017	5S	Sun	Open	13	150	11.55	8	1 failed egg when excavated 1 Oct.
167	20-Jul-09	N38 45.211	W76 22.426	Notch	Sun	Edge				8	Old nest, not excavated.
168	20-Jul-09	N38 45.088	W76 22.471	Notch	Sun	Edge				10	Old nest, not excavated.
169	20-Jul-09	N38 45.068	W76 22.409	Notch	Sun	Edge				8	Old nest, not excavated.
170	22-Jul-09	N38 45.088	W76 22.311	5N	Sun	Edge	13	115	8.86	9	Watched her lay at 8:10. PI 1112.
171	22-Jul-09	N38 45.144	W76 22.468	Notch	Sun	Edge				12	Old nest, not excavated. 1 failed egg when excavated 29 Oct
172	22-Jul-09	N38 45.661	W76 22.806	3	Sun	Edge	14	116	8.28	1	Only found 1 hatchling when excavated on Oct 20, found other egg shells but no more hatchlings.
173	23-Jul-09	N38 45.013	W76 22.155	5Mid	Sun	Edge	15	158	10.53	15	
174	23-Jul-09	N38 45.000	W76 22.090	5Mid	Sun	Edge	13	125	9.63	3	
175	27-Jul-09	N38 45.091	W76 22.360	Notch	Sun	Edge	13	113	10.23	0	2 weak shelled eggs; 2 eggs broken.
176	7-Aug-09	N38 45.069	W76 22.404	Notch	Sun	Edge				0	Depredated, shell & dead hatchling found.
177	10-Aug-09	N38 45.647	W76 22.800	3	Sun	Open					Emerged nest. Found egg shells & tracks.
178	14-Aug-09	N38 45.639	W76 22.799	3	Sun	Open					Hole with eggshells found.
179	31-Aug-09	N38 44.977	W76 22.039	5S	Sun	Edge				1	Excavated hole, found 1 hatchling.
180	3-Sep-09	N38 45.646	W76 22.801	3	Sun	Edge				1	Saw tracks, hole, excavated and found 1 remaining hatchling.
181	4-Sep-09	N38 45.294	W76 22.690	4Dx	Sun	Edge					Saw hole, excavated, found egg shells.
182	18-Sep-09	N38 44.970	W76 22.019	5S	Sun	Edge				1	Saw hole, excavated found 1 hatchling and shells.
183	6-Oct-09	N38 45.642	W76 22. 806	3	Sun	Edge					Saw tracks, followed them to hole, excavated, found egg shells.
184	25-May-10	N38 45.158	W76 22.464	notch	sun	edge					nest found in spring after hatchlings emerged
185	25-May-10	N38 45.073	W76 22.285	5	sun	edge					nest found in spring after hatchlings emerged
186	25-May-10	N38 44.991	W76 22.067	5	sun	edge					nest found in spring after hatchlings emerged
187	27-May-10	N38 35.034	W76 22.264	5	sun	edge					nest found in spring after hatchlings emerged
188	1-Jun-10	N38 45.447	W76 22.758	4DX	sun	veg					nest found in spring after hatchlings emerged
189	2-Jun-10	N38 45.027	W76 22.158	5	sun	edge					nest found in spring after hatchlings emerged

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
24-Aug-09	17064	17065	10R11L	Nest	1	28.5	32.5	28	15.8	7.5	Anom V4,5
24-Aug-09	17066		10R11L	Nest	1	28.9	32.5	28	16.2	7.4	Anom V4
24-Aug-09	17068		10R11L	Nest	1	28.4	32	28.3	16.4	7.4	
24-Aug-09	17069	17070	10R11L	Nest	1	27.8	30.7	27.1	15.3	7.1	26 marginals; deformed plastron
24-Aug-09	17071		10R11L	Nest	1	29.5	31.7	27.1	16.3	7.3	6 vertebrales; 10 costals; 26 marginals
24-Aug-09	17073		10R11L	Nest	1	29.6	32.5	28.3	16	7.4	
24-Aug-09	17074	17075	10R11L	Nest	1	28.9	31.8	28.4	15.8	7.4	
24-Aug-09	17076		10R11L	Nest	1	28.4	30.4	25	15.3	6.4	
25-Aug-09	17110	17111	10R11L	Nest	1	24.7	28.1	23.5	15.1	6.3	anom plastron
25-Aug-09	17112		10R11L	Nest	1	30	32.8	26.8	15.7	7.4	
25-Aug-09	17114		10R11L	Nest	1	30.8	28.5	27.4	16.2	7.4	6 costals R & L sides
28-Aug-09	17159		10R11L	Nest	1	28.9	32	28	16.6	7.6	
9-Sep-09	17480		10R11L	Nest	1	28.7	32.7	29.8	15.2	8.1	
9-Sep-09	17481	17482	10R11L	Nest	1	28.8	32.1	27.9	15.7	7.2	
24-Aug-09	17077	17078	10R11L	Nest	4	26.1	30.2	25.3	14.7	6.5	26 marginals
24-Aug-09	17079	17080	10R11L	Nest	4	25.9	30.4	26	15.5	6.8	
24-Aug-09	17081		10R11L	Nest	4	28.1	30.5	25.9	15.6	7	
24-Aug-09	17082	17083	10R11L	Nest	4	26.5	29.9	26.1	15.4	6.4	
24-Aug-09	17084		10R11L	Nest	4	25.5	29.9	15.6	14.8	6.4	Anom V3,4,5; 7 vertebrales
24-Aug-09	17086		10R11L	Nest	4	26.6	30.5	26.7	15.7	6.8	
24-Aug-09	17087	17088	10R11L	Nest	4	26.7	30.1	26.2	15.1	6.8	
24-Aug-09	17089		10R11L	Nest	4	25.5	29.6	24.2	14.8	6.4	
24-Aug-09	17091		10R11L	Nest	4	26.5	29.4	26.4	16.1	7.3	
24-Aug-09	17092	17093	10R11L	Nest	4	26.6	30.4	25.7	14.9	6.8	
24-Aug-09	17094		10R11L	Nest	4	24.9	28.9	24.7	15.3	6.5	
25-Aug-09	17107		10R11L	Nest	4	25.5	30	25.7	15.7	6.1	nuchal divided
9-Sep-09	17476	17477	10R11L	Nest	4	26.5	30.5	26.1	15.4	6.5	Anom V3,4,5
9-Sep-09	17478		10R11L	Nest	4	26.8	30.2	26.8	14.8	6.5	
13-Aug-09	16826	16827	10R11L	Nest	5	28.8	32.9	28.4	17.8	8.6	
13-Aug-09	16829		10R11L	Nest	5	28.5	32.8	29.4	17.9	8.8	Nuchal divided
13-Aug-09	16830		10R11L	Nest	5	28.3	32.9	28	16.4	8.2	26 marginals
13-Aug-09	16831		10R11L	Nest	5	28.2	32.4	29.3	17.2	8.5	Anom L1, R1 costal scutes; 13 L marginals.
13-Aug-09	16835		10R11L	Nest	5	29.2	33.4	29.3	18.5	9	
13-Aug-09	16836	16837	10R11L	Nest	5	29.1	32.8	28.9	16.7	8.4	26 marginals
13-Aug-09	16838		10R11L	Nest	5	29.9	34.2	29.4	17.8	9.2	
13-Aug-09	16839	16840	10R11L	Nest	5	28.9	33.8	28.8	17.4	8.6	
13-Aug-09	16841	16842	10R11L	Nest	5	28.2	33.3	28.4	16.2	8	
13-Aug-09	16843		10R11L	Nest	5	28.2	33.5	28.8	17.5	8.6	
13-Aug-09	16844	16845	10R11L	Nest	5	28	33.3	28.6	17.2	8.2	
17-Aug-09	16888	16889	10R11L	Nest	5	28.6	33.5	29.2	17.7	8.5	
20-Aug-09	16969	16970	10R11L	Nest	5	28	33.2	28.2	16.8	8.7	
30-Mar-10	61281	61282	10R12L	Nest	6	27.8	31.7	28.3	16.3	7.6	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61283		10R12L	Nest	6	27.6	31.1	28.1	15.2	7	
30-Mar-10	61285		10R12L	Nest	6	28.2	31.9	28.1	15.3	7.4	
30-Mar-10	61286	61287	10R12L	Nest	6	28.4	31.7	28.1	15.9	7.8	
30-Mar-10	61288		10R12L	Nest	6	28.6	31.7	27.4	15.4	7	
30-Mar-10	61289	61290	10R12L	Nest	6	27.4	31.6	28.3	15.9	7.3	Anom V5
30-Mar-10	61291		10R12L	Nest	6	28.8	31.7	27.3	16.1	7.3	
30-Mar-10	61293		10R12L	Nest	6	28.3	32.3	27.5	14.9	6.8	
30-Mar-10	61294	61295	10R12L	Nest	6	27.8	30.9	27.3	15.3	6.9	
30-Mar-10	61296		10R12L	Nest	6	28.1	31.2	27.4	15.6	7.3	Anom V5
30-Mar-10	61297	61298	10R12L	Nest	6	27	30.6	27.2	15.1	6.7	
24-Mar-10	61159	61160	10R12L	Nest	7	28.3	32.8	27.4	15.8	7.6	
30-Mar-10	61551		10R12L	Nest	7	27.9	32.2	27	15.5	7.3	
30-Mar-10	61552	61553	10R12L	Nest	7	28.4	32.7	27.5	14.9	7.4	
30-Mar-10	61554		10R12L	Nest	7	27.9	32.3	28.8	15.4	7.6	
30-Mar-10	61556		10R12L	Nest	7	28.3	31.9	26.9	14.6	7.2	
30-Mar-10	61557	61558	10R12L	Nest	7	28.3	32.2	27.9	15.4	7.6	
30-Mar-10	61559		10R12L	Nest	7	28.2	32.7	28.4	15.5	7.6	Anom V4-5
30-Mar-10	61561		10R12L	Nest	7	27.8	32.4	28.4	15	7.8	26 Marginals
30-Mar-10	61562	61563	10R12L	Nest	7	27.2	32.3	27.6	15.4	7.7	
30-Mar-10	61564		10R12L	Nest	7	27.3	31.6	27.1	15.1	7.3	
30-Mar-10	61565	61566	10R12L	Nest	7	28.6	32.6	27.4	15.6	8	Anom V5
30-Mar-10	61567		10R12L	Nest	7	28.2	33.2	28.7	15.4	7.8	
30-Mar-10	61569		10R12L	Nest	7	28.1	32.7	27.7	15	7.2	
11-Sep-09	17511		10R11L	Nest	8	28.1	30.5	26.4	15.8	6.7	Anom V5
11-Sep-09	17512	17513	10R11L	Nest	8	27	30	23.2	15.9	6.3	Anom V5
22-Sep-09	17776	17777	10R11L	Nest	8	25.1	29.5	25.2	15.7	6.6	13 L marginals; Anom L 4th costal
22-Sep-09	17778		10R11L	Nest	8	27.7	29.2	25.6	15.3	6.3	Anom V3,4; Anom R 5th costal
22-Sep-09	17780		10R11L	Nest	8	26.1	28.9	24.9	15.3	6.2	Anom V4,5
22-Sep-09	17781	17782	10R11L	Nest	8	27	29.7	25.5	15	6.1	
28-Sep-09	60651		10R11L	Nest	9	26.1	29.3	26	14.8	6.1	
28-Sep-09	60652	60653	10R11L	Nest	9	25.7	28.9	25.3	15.2	5.8	
22-Mar-10	61157	61158	10R12L	Nest	10	26.9	30.2	27.3	14.8	6.4	
30-Mar-10	61616		10R11L	Nest	10	26.4	29.3	26.8	15.4	6.5	
30-Mar-10	61617	61618	10R11L	Nest	10	25	28.9	26.5	15.2	6	
30-Mar-10	61619		10R11L	Nest	10	28	31	27.7	14.8	6.8	
30-Mar-10	61621		10R11L	Nest	10	27.7	30.3	27.5	14.9	6.7	
30-Mar-10	61622	61623	10R11L	Nest	10	27	29.5	26	14.9	6	
11-Aug-09	16824		10R11L	Nest	12	28.7	31.8	27.2	17.4	8.5	
17-Aug-09	16882		10R11L	Nest	12	28.4	32.1	28	17.3	8.5	
19-Aug-09	16963		10R11L	Nest	12	28.3	31.9	28	16.4	8.2	
19-Aug-09	16964	16965	10R11L	Nest	12	28.7	32.6	28.4	16.6	8.3	
19-Aug-09			10R11L	Nest	12	29.4	32.5	28.9	17.7	8.5	
20-Aug-09	16971		10R11L	Nest	12	27.8	32.6	28.6	16.5	7.9	
20-Aug-09	16972	16973	10R11L	Nest	12	28.7	33.4	28.9	16.3	8.1	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
20-Aug-09	16974	16975	10R11L	Nest	12	27.9	32.3	28.8	16.6	8	nuchal divided
20-Aug-09	16976		10R11L	Nest	12	27.9	32.2	28.8	17.4	8.9	nuchal divided
20-Aug-09				Nest	12						Dead in nest when excavated.
18-Aug-09	16905		10R11L	Nest	13	29.9	32.9	29.6	17.4	8.5	
18-Aug-09	16907		10R11L	Nest	13	28.4	32.5	28.4	16.7	8.2	
18-Aug-09	16908	16909	10R11L	Nest	13	28.5	32.7	29.4	15.7	8.5	
18-Aug-09	16911	16912	10R11L	Nest	13	30	32.9	28.9	17.1	8.7	Nuchal divided
18-Aug-09	16913	16914	10R11L	Nest	13	29	32.7	29.1	17.2	8.9	Anom V1, anom costal L1.
18-Aug-09	16915		10R11L	Nest	13	28.8	33	29.1	17.2	8.6	
18-Aug-09	16916	16917	10R11L	Nest	13	27.8	31.8	28.8	16.4	8	
18-Aug-09	16918	16919	10R11L	Nest	13	29	30.6	28	16.5	8	
18-Aug-09	16920		10R11L	Nest	13	28.5	31.7	28.1	17.5	8.1	
18-Aug-09	16921	15922	10R11L	Nest	13	30.1	32.7	28.4	16.9	8.2	
18-Aug-09	16923	16924	10R11L	Nest	13	29.8	32.4	28.5	16.2	7.8	
18-Aug-09	16925		10R11L	Nest	13	29.4	33	29.3	17.3	8.6	
18-Aug-09	16926	16927	10R11L	Nest	13	28.7	31.9	27.3	17.2	7.8	
18-Aug-09	16928		10R11L	Nest	13	28.1	31.4	28.2	15.8	7.4	
18-Aug-09	16930		10R11L	Nest	13	28.7	32.9	30.4	16.7	8.3	
18-Aug-09	16931	16932	10R11L	Nest	13	30.1	32.8	29.3	16.6	8.5	
6-Aug-09	16818	16819	10R11L	Nest	14	26.5	29.4	24.3	14.9	7.4	
6-Aug-09	16820		10R11L	Nest	14	26.2	29.8	25.6	15.8	8	
11-Aug-09	16822	16823	10R11L	Nest	14	24.3	27.3	22.9	17.7	6.4	
17-Aug-09	16902		10R11L	Nest	14	30	32.9	27.1	17.4	8.2	
17-Aug-09	16903	16904	10R11L	Nest	14	27.7	32.5	28.6	16.7	8	
1-Sep-09	17318	17319	10R11L	Nest	16	28.3	31.5	27.6	15.3	7.7	
1-Sep-09	17320		10R11L	Nest	16	27.5	31.6	27.2	16.6	7.4	
1-Sep-09	17321	17322	10R11L	Nest	16	28.2	31.7	28	15.2	7.4	
11-Sep-09	17507	17508	10R11L	Nest	16	27	30.7	25.7	16.2	6.5	
16-Sep-09	17665	17666	10R11L	Nest	16	27.1	30.7	27.3	15.7	6.8	
16-Sep-09	17667		10R11L	Nest	16	26.1	30	27.1	15.5	6.6	
16-Sep-09	17668	17669	10R11L	Nest	16	27.9	30.5	26.6	16.3	6.8	
24-Aug-09	17048		10R11L	Nest	17	27.4	32.5	28.4	16.6	7.7	
24-Aug-09	17050		10R11L	Nest	17	27.1	32.1	28.5	16.6	7.9	
24-Aug-09	17051	17052	10R11L	Nest	17	27.2	32.4	28.5	17.2	7.7	Nuchal divided
25-Aug-09	17117		10R11L	Nest	17	27.2	31.4	28.2	15.9	7.1	
25-Aug-09	17118	17119	10R11L	Nest	17	26.8	31.3	28.1	16.4	7.2	
25-Aug-09	17120		10R11L	Nest	17	27	31.3	28.3	16.5	7.2	
10-Sep-09	17491	17492	10R11L	Nest	17	25.4	30.1	26.8	16.1	6.4	
10-Sep-09	17493		10R11L	Nest	17	28.2	32.8	30	15.6	8.3	
10-Sep-09	17494	17495	10R11L	Nest	17	27.7	32.6	29	16.2	7.6	
19-Aug-09	16951	16952	10R11L	Nest	18	24.7	29.4	25.3	15.7	6.1	
19-Aug-09	16953		10R11L	Nest	18	26.4	30.2	25.7	16.2	7.3	
19-Aug-09	16954	16955	10R11L	Nest	18	24.8	27.4	23.6	15.7	6.3	
19-Aug-09	16956		10R11L	Nest	18	26.5	29.8	25.6	15.7	4.7	
19-Aug-09	16958		10R11L	Nest	18	26.9	31.3	27.2	16	7	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61734		10R12L	Nest	39	26.2	29.8	26.2	15	6.6	Anom V5
22-Mar-10	61180		10R12L	Nest	41	28.2	31.4	27.3	15.4	7.9	
22-Mar-10	61182		10R12L	Nest	41	28.3	30	27.4	15.4	7.4	
22-Mar-10	61183	61184	10R12L	Nest	41	29	30.3	27.4	15.5	7.3	Anom V3
22-Mar-10	61185		10R12L	Nest	41	29.2	32	27.8	14.9	7.5	
22-Mar-10	61186	61187	10R12L	Nest	41	28.3	30.7	26.9	15.1	6.9	
30-Mar-10	61203		10R12L	Nest	41	29	31.1	28	15.7	8	
30-Mar-10	61204	61205	10R12L	Nest	41	27.7	31.4	28.8	15.2	7.2	
30-Mar-10	61206		10R12L	Nest	41	29.2	31	28.5	15.9	7.6	
30-Mar-10	61207	61208	10R12L	Nest	41	28	31.4	28	15.7	7.5	
30-Mar-10	61319		10R12L	Nest	42	28.8	31.7	28.6	16.4	7.9	
30-Mar-10	61320	61321	10R12L	Nest	42	28.9	30.9	27.9	16.8	7.7	
30-Mar-10	61322		10R12L	Nest	42	28.9	32	29	16.4	8.4	
30-Mar-10	61323	61324	10R12L	Nest	42	28.8	32.6	28.5	16.2	8.2	Anom V5
30-Mar-10	61325	61326	10R12L	Nest	42	30.1	32.3	28.3	16	8	
30-Mar-10	61327		10R12L	Nest	42	29.3	32.8	28.5	16.5	8.4	
17-Aug-09	16890	16891	10R11L	Nest	43	29.2	31	27.3	16.2	8	
17-Aug-09	16892		10R11L	Nest	43	27.6	30.1	26.5	16.4	7.7	
17-Aug-09	16893	16894	10R11L	Nest	43	28.3	31.9	27.1	17.1	8.2	Anom V4,V5
17-Aug-09	16895	16896	10R11L	Nest	43	28.4	30.5	27.2	16.1	8	Anom V3,4,5; Anom costal L4
17-Aug-09	16897		10R11L	Nest	43	28.3	31.3	27.3	16.6	8	
17-Aug-09	16898	16899	10R11L	Nest	43	28.5	31.5	27.8	17.1	8.4	Anom V5
28-Aug-09	17141		9R	Nest	45	27.5	30.5	26.2	15.1	6.6	Anom V5- 3 extra vertebrales; 5 L costals
28-Aug-09	17143		9R	Nest	45	27.2	30.7	27.2	16.5	7.2	
28-Aug-09	17144	17145	9R	Nest	45	28.3	32	27.7	16.5	7.6	Anom V5
28-Aug-09	17146		9R	Nest	45	28.2	31.6	26.1	16.3	7.3	5 R costals; 6 L costals; 9 vertebrales
28-Aug-09	17148		9R	Nest	45	28.9	32.1	27.2	16.2	7.5	Anom V5
28-Aug-09	17149	17150	9R	Nest	45	28.1	33	28.1	16.8	7.5	7 vertebrales; 5 R costals
28-Aug-09	17151		9R	Nest	45	28.2	32.4	28.2	15.6	7.4	
28-Aug-09	17152	17153	9R	Nest	45	27.8	31.6	26.7	16.1	7.3	
28-Aug-09	17154		9R	Nest	45	26.9	31.2	26.3	14.9	6.8	5 L costals; 6 R costals; 6 vertebrales; 13 R marginals
28-Aug-09	17156		9R	Nest	45	27.3	32.2	27.5	16.2	7.6	5 L costals.
28-Aug-09	17157	17158	9R	Nest	45	26.9	31.6	26.9	16.3	7.1	Anom V5- three extra verts
28-Aug-09				Nest	45						Found dead- dry and wrinkled.
29-Sep-09	60764		10R11L	Nest	46	28.3	32.3	29.1	16	7.7	
29-Sep-09	60766		10R11L	Nest	46	28	32.6	28.6	16.1	7.3	
29-Sep-09	60767	60768	10R11L	Nest	46	28.8	33.1	29.2	17.1	8.1	
29-Sep-09	60769		10R11L	Nest	46	29.4	33.1	28.4	16	7.5	
29-Sep-09	60770	60771	10R11L	Nest	46	28.2	32.2	28.6	17	8.1	
29-Sep-09	60772		10R11L	Nest	46	28.6	32.7	27.9	16.2	7.9	
29-Sep-09	60774		10R11L	Nest	46	28.9	32.4	29.3	16.4	8.1	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
29-Sep-09	60775	60776	10R11L	Nest	46	28.1	31.7	27.8	15.9	7.6	
29-Sep-09	60777		10R11L	Nest	46	28	32.7	28.8	15.8	7.7	
13-Oct-09	60954	60955	10R11L	Nest	46	27.5	31.2	28.7	16.7	7.6	
30-Mar-10	61211		10R12L	Nest	47	26.4	28.4	26.6	15.7	6.5	
30-Mar-10	61212	61213	10R12L	Nest	47	26.5	28.8	26.1	15.2	5.9	
30-Mar-10	61214		10R12L	Nest	47	26.9	29.8	27.6	14.9	6.5	
30-Mar-10	61215	61216	10R12L	Nest	47	25.6	29.3	26.9	14.9	6.2	
30-Mar-10	61217		10R12L	Nest	47	27	29.8	26.4	15	6.4	
30-Mar-10	61219		10R12L	Nest	47	27.3	29.1	26.8	14.3	6.4	
30-Mar-10	61220	61221	10R12L	Nest	47	25.9	28.3	26.1	14.9	6	
30-Mar-10	61222		10R12L	Nest	47	26.4	29.5	27.6	15	6.3	
30-Mar-10	61223	61224	10R12L	Nest	47	27.5	30.3	26.9	15.1	6.6	
30-Mar-10	61225		10R12L	Nest	47	26.7	29.7	26.8	15.2	6.2	
30-Mar-10	61227		10R12L	Nest	47	26.2	28.8	27.2	14.9	6.2	
30-Mar-10	61228	61229	10R12L	Nest	47	25.9	29.7	27.5	14.8	6.4	
30-Mar-10	61230		10R12L	Nest	47	26.9	29.5	25.8	15	6	
31-Aug-09	17225		10R11L	Nest	48	28.2	32.9	28.2	16.1	7.5	
31-Aug-09	17226	17227	10R11L	Nest	48	27.9	33	28.6	16.6	7.9	5 R costals.
31-Aug-09	17228		10R11L	Nest	48	28.3	32.6	28.5	16.4	8	
31-Aug-09	17230		10R11L	Nest	48	28.9	33.5	28.6	16.5	8	5 R & L costals
31-Aug-09	17231	17232	10R11L	Nest	48	29.4	32.7	28.4	16.3	7.8	
2-Sep-09	17366		10R11L	Nest	48	27.8	33.2	28.7	16.2	7.9	
2-Sep-09	17367	17368	10R11L	Nest	48	27.5	32.3	27.8	15.8	7.4	
24-Aug-09	17030		10R11L	Nest	49	27.2	29.8	25.8	15.5	7.3	
24-Aug-09	17032		10R11L	Nest	49	27.4	31.6	25.4	16.4	7	
13-Aug-09	16846		10R11L	Nest	50	26	29	26.4	16	6.9	
13-Aug-09	16848		10R11L	Nest	50	27.3	30.6	27.5	16.6	7.4	
13-Aug-09	16849	16850	10R11L	Nest	50	25.9	27.2	25.8	15.9	6.8	Anom V5,6.
13-Aug-09	16851		10R11L	Nest	50	26.3	29.9	27.1	15.7	7.3	
13-Aug-09	16852	16853	10R11L	Nest	50	26.4	28.8	25.2	15.8	6.8	
13-Aug-09	16854	16855	10R11L	Nest	50	25.6	28.1	26.9	16.6	6.7	
13-Aug-09	16856		10R11L	Nest	50	24.9	29	26	17	6.9	
13-Aug-09	16857	16858	10R11L	Nest	50	26.5	29.8	26.8	15.6	6.9	
13-Aug-09	16859	16860	10R11L	Nest	50	26	29.7	26.6	15.5	7	
13-Aug-09	16861		10R11L	Nest	50	26	28.3	25.5	15.8	6.6	
13-Aug-09	16862	16863	10R11L	Nest	50	26.8	29.5	26.2	16.1	6.8	
14-Aug-09	16864		10R11L	Nest	50	24.3	27.4	24.2	15	5.8	Anom V5, 26 marginals.
30-Mar-10	61395		10R12L	Nest	51	29.4	32.7	28.8	16.4	8.2	
30-Mar-10	61396	61397	10R12L	Nest	51	27.6	32.5	28.7	15.6	7.4	Anom V5 26 Marg
24-Mar-10	61137		10R12L	Nest	52	27	30.3	27.2	15	7.1	
24-Mar-10	61138	61139	10R12L	Nest	52	27.2	30.4	26.7	14.5	7.1	
24-Mar-10	61140		10R12L	Nest	52	28.6	32.1	28.8	14.7	7.8	
24-Mar-10	61141	61142	10R12L	Nest	52	24.5	27.4	25.2	14	5.7	
24-Mar-10	61143	61144	10R12L	Nest	52	26.6	30.6	28	15.5	7.5	
24-Mar-10	61145		10R12L	Nest	52	26.7	30.2	27.7	16	7.1	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
24-Mar-10	61146	61147	10R12L	Nest	52	27.6	30.9	27.3	15.4	7	
24-Mar-10	61148		10R12L	Nest	52	25.3	30	27.3	14.9	6.5	
30-Mar-10	61409	61410	10R12L	Nest	52	27	28.6	25.7	15.3	5.9	
30-Mar-10	61411		10R12L	Nest	52	27.9	30.7	26.9	15.6	6.9	
30-Mar-10	61412		10R12L	Nest	52	27.4	30.6	28.6	15.2	6.9	
30-Mar-10	61414	61415	10R12L	Nest	52	28.6	29.8	27.6	14.7	6.4	
30-Mar-10	61570	61571	10R12L	Nest	53	29.3	31.8	28.2	16	8.2	
30-Mar-10	61572		10R12L	Nest	53	28.6	31.3	29.2	16	8	
30-Mar-10	61573	61574	10R12L	Nest	53	28.3	31.4	28.7	15.4	7.7	
30-Mar-10	61575		10R12L	Nest	53	28.6	32	28.6	16.1	8.3	
30-Mar-10	61577		10R12L	Nest	53	27.8	31.7	28	15.8	7.7	
30-Mar-10	61578	61579	10R12L	Nest	53	27.8	32	29.5	15.6	8.5	
30-Mar-10	61580		10R12L	Nest	53	28.3	31.5	27.8	15.3	7.6	
30-Mar-10	61582		10R12L	Nest	53	27	30.5	27.8	15.9	7.8	
30-Mar-10	61583	61584	10R12L	Nest	53	28.7	31.7	27.8	16.2	8.1	
30-Mar-10	61585		10R12L	Nest	53	27.6	31.7	28.9	15.6	8	
30-Mar-10	61586	61587	10R12L	Nest	53	28.2	31.6	28.6	16.3	8.1	
30-Mar-10	61588		10R12L	Nest	53	26	30	26.5	15.5	6.8	
30-Mar-10	61590		10R12L	Nest	53	27.1	31.4	27.9	16.3	7.9	
30-Mar-10	61591	61592	10R12L	Nest	53	27.7	31.3	28	16	7.8	
30-Mar-10	61593		10R12L	Nest	53	27.8	31.1	28.9	15.5	8.1	
30-Mar-10	61624		10R11L	Nest	54	28.6	31.5	26.8	14.9	7.5	
30-Mar-10	61625	61626	10R11L	Nest	54	27.4	31.2	26	15.2	7	
30-Mar-10	61627		10R11L	Nest	54	29.4	32	27.2	15.2	7.3	
30-Mar-10	61629		10R11L	Nest	54	26.4	30.9	26.2	15.2	6.8	13 Marg on R
30-Mar-10	61630	61631	10R11L	Nest	54	28	30.9	26	15	7.1	
30-Mar-10	61632		10R11L	Nest	54	28.2	30.7	26.2	15.4	7.4	
30-Mar-10	61633	61634	10R11L	Nest	54	27	30.9	26.2	14.9	6.8	
30-Mar-10	61635	61636	10R11L	Nest	54	28.3	30.9	27.4	15.1	7.5	
30-Mar-10	61637		10R11L	Nest	54	28.3	32	27.3	14.6	7.6	Anom V5; 13 R marginals
30-Mar-10	61638	61639	10R11L	Nest	54	26.9	29.7	25.5	14.3	6.5	
30-Mar-10	61640		10R11L	Nest	54	26.9	29.2	26.1	14.8	6.5	
13-Oct-09	60973	60974	10R11L	Nest	55	26.3	29.6	25.7	14.8	6.4	
13-Oct-09	60975	60976	10R11L	Nest	55	26.1	29.4	26.6	14.7	6.3	
13-Oct-09	60977		10R11L	Nest	55	25.8	29.3	26.7	14.7	6.3	
13-Oct-09	60978	60979	10R11L	Nest	55	26.1	28.2	26.1	15.4	6.5	
13-Oct-09	60980		10R11L	Nest	55	27.2	28.5	24.9	15.6	6.6	
13-Oct-09	60981	60982	10R11L	Nest	55	27.2	29.7	27.1	14.8	6.5	
13-Oct-09	60983	60984	10R11L	Nest	55	26.7	29.3	26.4	14.9	6.7	
13-Oct-09	60985		10R11L	Nest	55	26.9	29.2	26.3	15.1	6.7	
13-Oct-09	60986	60987	10R11L	Nest	55	28	30	26.5	15	6.9	
13-Oct-09	60988		10R11L	Nest	55	26.5	28.5	25	15.7	6.5	
13-Oct-09	60990		10R11L	Nest	55	26.3	28.7	25.3	15.1	6.5	Anom V5
13-Oct-09	60991	60992	10R11L	Nest	55	25.8	28.8	25.7	14.8	6.4	
13-Oct-09	60993		10R11L	Nest	55	26.8	29.5	27	15.2	6.7	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
13-Oct-09	60994	60995	10R11L	Nest	55	27.2	29.7	26.8	15.3	6.7	
13-Oct-09	60996	60997	10R11L	Nest	55	26.8	29.1	25.3	15	6.3	Nuchal divided
13-Oct-09	60998		10R11L	Nest	55	27.3	29.6	25.8	15.2	6.5	Anom V3,4; 5 L costals
28-Sep-09	60723	60724	10R11L	Nest	56	28.6	31.4	28.3	16	8	
28-Sep-09	60725	60726	10R11L	Nest	56	27.6	30.9	27.3	16.5	8	
28-Sep-09	60727		10R11L	Nest	56	28.7	31.8	27.8	16.2	8.1	
28-Sep-09	60728	60729	10R11L	Nest	56	28.1	31.8	29	16.6	8.4	
28-Sep-09	60730		10R11L	Nest	56	28.3	31.1	27.5	16.4	7.7	
28-Sep-09	60732		10R11L	Nest	56	27.9	31.7	28.4	15.9	7.9	
28-Sep-09	60733	60734	10R11L	Nest	56	28.9	30.8	27.1	16.1	7.9	
28-Sep-09	60735		10R11L	Nest	56	27.9	31.3	27.2	16	7.8	
28-Sep-09	60737		10R11L	Nest	56	29.1	31.9	28	15.7	7.8	
28-Sep-09	60738	60739	10R11L	Nest	56	29.2	32.2	27.5	16.3	8	
28-Sep-09	60740		10R11L	Nest	56	27.3	31.7	27.2	16.1	7.7	
28-Sep-09	60741	60742	10R11L	Nest	56	27	31.4	27.6	15.7	7.6	
28-Sep-09	60743	60744	10R11L	Nest	56	28.5	30.9	27.3	16.2	8	Anom V4,5
28-Sep-09	60745		10R11L	Nest	56	28.2	31.7	27.3	16.1	8	
28-Sep-09	60746	60747	10R11L	Nest	56	27.8	31.6	28.2	15.6	7.3	
29-Sep-09	60751	60752	10R11L	Nest	56	27.4	31.4	27.3	15.4	7.3	
24-Aug-09	16982	16983	2R	Nest	57	26.1	29.7	26.4	16.1	6.6	
24-Aug-09	16984		2R	Nest	57	26.2	30	26.2	17	6.8	
24-Aug-09	16986		2R	Nest	57	26.9	30.3	26.7	16.1	7.2	Anom V3,4.
24-Aug-09	16987	16988	2R	Nest	57	27.3	30	26.9	15.8	7.4	Anom V5, 5 right costals.
24-Aug-09	16989		2R	Nest	57	25.9	30.3	25.7	15.8	6.6	
24-Aug-09	16990	16991	2R	Nest	57	26.1	29.6	26.7	15.8	6.5	
24-Aug-09	16992	16993	2R	Nest	57	27.2	30.4	26.5	15.9	6.8	
24-Aug-09	16994		2R	Nest	57	26.2	28.5	26.1	15.7	6.8	
24-Aug-09	16995	16996	2R	Nest	57	26.9	29.7	26.5	15.9	6.8	
24-Aug-09	16997		2R	Nest	57	26.4	29.3	26.7	15.7	6.8	
24-Aug-09	16999		10R11L	Nest	57	27.3	30.5	27.4	15.6	7.1	
24-Aug-09	17000	17001	10R11L	Nest	57	26.7	30.5	26.9	15.8	7	
24-Aug-09	17002		10R11L	Nest	57	24	27	24.6	14.2	5.8	
24-Aug-09	17004		10R11L	Nest	57	25.5	29.6	26.6	15	6.6	11 R marginals, nuchal divided.
22-Sep-09	17766	17767	10R11L	Nest	57	27.9	30.2	27.7	15.6	7.5	
24-Aug-09	17096		10R11L	Nest	58	28.6	30.5	27	17.5	7.7	
24-Aug-09	17097	17098	10R11L	Nest	58	27.6	29.5	26.4	15.9	7.2	
24-Aug-09	17099		10R11L	Nest	58	27.9	20.6	26.1	16.2	7.3	
24-Aug-09	17101		10R11L	Nest	58	25.7	29.1	25.3	15.5	6.8	
24-Aug-09	17102	17103	10R11L	Nest	58	27.5	31.2	26.9	16.5	7.5	
24-Aug-09	17104		10R11L	Nest	58	25.8	28.8	24.3	15.3	6.5	damage to carapace.
24-Aug-09	17105	17106	10R11L	Nest	58	23.8	27.6	22.4	16.1	6	
25-Aug-09	17121		10R11L	Nest	58	28	31.1	27.1	16.1	7.2	
15-Sep-09	17608		10R11L	Nest	58	25.4	27.7	24.6	16.4	6.7	
24-Aug-09	17005	17006	3R	Nest	59	27.3	30.5	27.7	16.4	7.4	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
24-Aug-09	17007	17015/ 6	3R	Nest	59	28.4	31.5	29	15.9	7.5	
24-Aug-09	17009		3R	Nest	59	27.4	31.1	27.8	16.2	7.4	
24-Aug-09	17010	17011	3R	Nest	59	27.5	31.2	28.4	16.5	7.4	
24-Aug-09	17012		3R	Nest	59	28	31	28.3	16.2	7.6	
24-Aug-09	17014		3R	Nest	59	28.5	31.8	28.5	16.4	8	
24-Aug-09	17017		3R	Nest	59	27.5	31	28.7	16.7	7.7	
24-Aug-09	17018	17019	3R	Nest	59	28.2	31.4	27.8	16.3	7.3	
24-Aug-09	17020		3R	Nest	59	28.1	31.6	27.8	15.8	7.3	
24-Aug-09	17022		3R	Nest	59	25.5	27.1	24.1	14.8	5.3	
24-Aug-09	17023	17024	10R11L	Nest	59	24.2	27.3	24.1	15.2	5.7	
10-Sep-09	17504	17505	10R11L	Nest	59	25.7	28.3	22.7	15.7	5.8	Anom V2; Anom left 2nd costal; doesn't open right eye
10-Sep-09	17506		10R11L	Nest	59	24.1	27.6	25.1	15.6	6.1	
19-Aug-09	16959	16960	10R11L	Nest	61	27.4	31	27.7	15.5	7.4	
19-Aug-09	16961		10R11L	Nest	61	28.6	33.5	28.3	16	8.1	
21-Aug-09	16977	16978	10R11L	Nest	61	28.3	31.8	28.2	16.9	7.7	
21-Aug-09	16981		10R11L	Nest	61	25.8	31.1	28.1	15.7	7.2	
24-Aug-09	17033	17034	10R11L	Nest	61	29.4	33.1	27.8	16.1	7.7	
24-Aug-09	17035		10R11L	Nest	61	28.1	32.8	28.4	16.9	8	Anom V4,V5; 5 R costals
24-Aug-09	17037		10R11L	Nest	61	27.8	33.2	28.6	16.2	8.1	
24-Aug-09	17038	17039	10R11L	Nest	61	28.8	33.1	28.6	16.1	7.6	
24-Aug-09	17040		10R11L	Nest	61	28.2	32.5	29.7	16	7.8	
1-Sep-09	17313	17314	10R11L	Nest	61	29.7	33.3	28.3	16.4	8.1	
27-Oct-09	61041	61042	10R11L	Nest	62	29.9	33.8	29.6	15.4	8.5	
27-Oct-09	61043		10R11L	Nest	62	28.8	33.9	29.5	15.5	7.9	
27-Oct-09	61044	61045	10R11L	Nest	62	29.3	34.1	30.4	16.7	8.9	
27-Oct-09	61046	61047	10R11L	Nest	62	29	33.8	29.7	16.8	8.4	
27-Oct-09	61048		10R11L	Nest	62	29.4	34.7	29.1	15.9	8.6	
27-Oct-09	61049	61050	10R11L	Nest	62	28.7	33	28.7	15.8	7.7	
27-Oct-09	61051		10R11L	Nest	62	28.7	33.8	29.8	16	8.4	
29-Oct-09	61093		10R11L	Nest	62	27.7	32.3	28.3	15.7	7.7	
29-Oct-09	61094	61095	10R11L	Nest	62	29.1	33.9	30.5	16	8.1	
27-Aug-09	17127		10R11L	Nest	64	25.5	30.4	25.2	15.7	6.3	26 marginals
31-Aug-09	17262	17263	1L	Nest	64	26.6	31.4	28.1	15.1	7	Anom V4,5
31-Aug-09	17264	17265	1L	Nest	64	27.3	30.7	26.9	15.5	6.8	Anom V2,3,4,5 (11 costals); 26 marginals
31-Aug-09	17266		1L	Nest	64	25.9	30.4	27.1	15.7	7.1	nuchal divided
31-Aug-09	17267	17268	1L	Nest	64	27	31.4	27.1	16	7.4	nuchal divided
31-Aug-09	17269	17270	1L	Nest	64	27.6	30.9	28	16.1	7.7	Anom V4,5
31-Aug-09	17271		1L	Nest	64	29.1	33.7	28.9	16.2	8.1	nuchal divided
31-Aug-09	17272	17273	1L	Nest	64	26.1	30.8	26.7	15	6.9	26 marginals
31-Aug-09	17274		1L	Nest	64	26.2	31.2	27.1	15.5	6.7	nuchal divided.
31-Aug-09	17276		1L	Nest	64	29.5	34	29.4	17.6	8.9	nuchal divided; extra scute on 12th marginal

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
1-Sep-09	17310		1L	Nest	64	27	32.2	28.3	15	7.1	
8-Sep-09	17432	17433	10R11L	Nest	64	26.8	31.5	27.5	16.3	6.9	anom V5
24-Mar-10	61161		10R12L	Nest	66	27.9	31.2	27.8	15.2	7.7	
24-Mar-10	61162	61163	10R12L	Nest	66	27	30.6	26.4	15.7	7.2	
24-Mar-10	61164		10R12L	Nest	66	26.7	30	26.1	14.8	6.8	
24-Mar-10	61166		10R12L	Nest	66	26.9	29.9	25.4	14.7	6.3	Anom V5
24-Mar-10	61167	61168	10R12L	Nest	66	27.8	31.9	27.3	15.8	7.6	
31-Mar-10	61790	61791	10R12L	Nest	66	26.1	28.6	25.6	14.4	5.9	
31-Mar-10	61792		10R12L	Nest	66	26.5	30.4	27.6	15.1	7.1	
31-Mar-10	61794		10R12L	Nest	66	26.3	28.7	25.1	14.6	6.4	
31-Mar-10	61795	61796	10R12L	Nest	66	27.9	30.9	27.1	15	7	Anom V5
31-Mar-10	61797		10R12L	Nest	66	28.3	30.6	27.7	16.2	7.7	
31-Mar-10	61798		10R12L	Nest	66	27.2	30.1	27.8	15.7	7.7	
31-Mar-10	61800	61801	10R12L	Nest	66	27.2	30.8	27.8	15.6	7.4	
31-Mar-10	61802		10R12L	Nest	66	27.2	30.6	26.6	15.7	7.4	
31-Mar-10	61803	61804	10R12L	Nest	66	26.1	29.7	26	14.7	6.6	
2-Oct-09	60787		10R11L	Nest	67	28.2	32.1	27.7	16.8	8.1	
2-Oct-09	60788	60789	10R11L	Nest	67	27.5	31	27.6	16.6	7.6	Nuchal divided
2-Oct-09	60790		10R11L	Nest	67	28.9	32.4	28.4	16.2	8	
2-Oct-09	60791	60792	10R11L	Nest	67	26.8	30.4	27	15.6	6.9	
5-Oct-09	60848		10R11L	Nest	67	25.6	30.6	26.4	15.5	6.5	
5-Oct-09	60849	60850	10R11L	Nest	67	26.1	30	25.7	14.6	6.3	
5-Oct-09	60851		10R11L	Nest	67	27.1	30.2	26.6	15.3	6.6	
5-Oct-09	60854	60855	9R12L	Nest	67	28.2	31.3	28.1	16.3	7.6	
5-Oct-09	60856		9R12L	Nest	67	27.8	31.8	28.3	15.3	6.8	
5-Oct-09	60857	60858	9R12L	Nest	67	27.6	30.4	26.4	15.1	6.4	
5-Oct-09	60859	60860	9R12L	Nest	67	26.7	31.6	28.1	16.2	7.9	
5-Oct-09	60861		9R12L	Nest	67	26.9	31.8	28.5	16.8	7.8	
5-Oct-09	60862	60863	9R12L	Nest	67	26.8	31	28.7	16.1	7.6	
5-Oct-09	60864		9R12L	Nest	67	27.3	30.8	27.1	15.2	6.8	
5-Oct-09	60865	60866	9R12L	Nest	67	27.2	30.1	27.7	15.4	6.7	
5-Oct-09	60867	60868	9R12L	Nest	67	27.4	30.8	27.1	15.9	7.3	
5-Oct-09	60869		9R12L	Nest	67	25.8	29.3	26	15.5	6.4	
5-Oct-09	60870	60871	9R12L	Nest	67	26.8	31.4	27.2	15.3	7.2	
5-Oct-09	60872		9R12L	Nest	67	27.5	31.5	27.2	15.3	7	
5-Oct-09	60874		9R12L	Nest	67	26.5	30.4	27.7	14.5	6.9	
5-Oct-09	60875	60876	9R12L	Nest	67	27	31.3	27.7	15.7	7.3	
5-Oct-09	60877		9R12L	Nest	67	27.6	31.1	27.9	15.2	7.1	
5-Oct-09	60878	60879	9R12L	Nest	67	27.8	31.1	27.6	15.5	7.2	
5-Oct-09	60880		9R12L	Nest	67	27.6	31	27	15.8	7.2	
5-Oct-09	60882		9R12L	Nest	67	27.7	30.8	26.5	15.2	6.7	
5-Oct-09	60883	60884	9R12L	Nest	67	27.4	31.3	28.4	15.7	7.2	
30-Mar-10	61257	61258	10R12L	Nest	69	24.9	29.1	25	14.3	5.7	
30-Mar-10	61259		10R12L	Nest	69	25.6	29.6	25.2	14.7	5.7	
30-Mar-10	61260	61261	10R12L	Nest	69	23.9	27.9	23.7	14	5.5	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61262		10R12L	Nest	69	25.3	29.8	24.9	14.9	6	
30-Mar-10	61264		10R12L	Nest	69	25.9	29.9	25.6	14.2	5.6	
30-Mar-10	61265	61266	10R12L	Nest	69	24.4	28.3	24.3	14.5	5.3	
30-Mar-10	61267		10R12L	Nest	69	24.3	28.6	25.2	15.2	5.7	
30-Mar-10	61268	61269	10R12L	Nest	69	25.1	29.2	25.7	14	5.7	
30-Mar-10	61270	61271	10R12L	Nest	69	24.9	28.6	24.7	14.2	5.7	
30-Mar-10	61272		10R12L	Nest	69	25.2	28.8	25.3	14.4	5.6	
30-Mar-10	61273	61274	10R12L	Nest	69	25.2	29	25.1	14.8	6.2	
30-Mar-10	61275		10R12L	Nest	69	24.8	29.8	24.9	14.5	5.7	Anom V5
30-Mar-10	61276	61277	10R12L	Nest	69	25.2	29.5	24.5	14.5	5.7	
30-Mar-10	61278	61279	10R12L	Nest	69	24.6	29.2	24.9	14.6	5.7	
30-Mar-10	61280		10R12L	Nest	69	25.4	29.2	24.4	14.8	6.1	Anom V5
11-Sep-09	17537		10R11L	Nest	70	28.3	33.2	27.6	16.9	7.7	
11-Sep-09	17539		10R11L	Nest	70	28.2	32.4	27.5	16	7.5	
11-Sep-09	17540	17541	10R11L	Nest	70	28.8	31.7	27.9	16.1	7.8	
11-Sep-09	17542		10R11L	Nest	70	28.8	32.6	28.5	16.3	8.2	
11-Sep-09	17543	17544	10R11L	Nest	70	27.7	31.9	28.1	16.7	7.9	
11-Sep-09	17562		12L	Nest	70	28.3	33.4	29	16.4	8.9	
11-Sep-09	17563	17564	12L	Nest	70	29.8	33.4	28.5	17	8.4	
11-Sep-09	17565		12L	Nest	70	29.5	32.8	28.8	15.9	8.7	
11-Sep-09	17566	17567	12L	Nest	70	28.8	31.9	28.2	16.8	8.5	
11-Sep-09	17568	17569	12L	Nest	70	29	32.2	27.2	17.8	8.7	
11-Sep-09	17570		12L	Nest	70	28.6	32.4	29.4	16.2	8.2	
11-Sep-09	17571	17572	12L	Nest	70	28.5	32.1	28.7	16.8	8.3	
11-Sep-09	17573	17574	12L	Nest	70	29.4	33.4	29.9	16.5	8.8	13 R marginals
11-Sep-09	17575		12L	Nest	70	27.4	32.5	28.7	17.6	8.8	
11-Sep-09	17576	17577	12L	Nest	70	28.7	32.4	27.9	16.5	8.2	
22-Sep-09	17773		10R11L	Nest	70	28	32	28.6	16.2	7.6	13 R marginals
22-Sep-09	17775		10R11L	Nest	70	29.2	30.3	28.3	16.4	7.8	
30-Mar-10	61682	61683	10R12L	Nest	71	23.8	28	25.5	15.1	5.3	
30-Mar-10	61684		10R12L	Nest	71	25.5	28.8	26.1	14.9	5.9	Anom V5
30-Mar-10	61685	61686	10R12L	Nest	71	25.2	29	26.3	15	6.2	
30-Mar-10	61687		10R12L	Nest	71	24.8	29.1	25.9	14.7	5.9	
30-Mar-10	61689		10R12L	Nest	71	25.1	27.6	23.9	14.6	5.2	
30-Mar-10	61690	61691	10R12L	Nest	71	23.9	27.9	24.8	14.9	5.4	
30-Mar-10	61692		10R12L	Nest	71	25	28.7	25.1	14.7	5.5	
30-Mar-10	61693	61694	10R12L	Nest	71	24.6	28.5	25.5	14.8	5.7	
30-Mar-10	61695		10R12L	Nest	71	25.4	28.8	25.3	15.5	5.8	
30-Mar-10	61697		10R12L	Nest	71	24.5	27.5	23.9	14.6	5.1	
30-Mar-10	61698	61699	10R12L	Nest	71	25.1	28.1	25.8	15.1	5.7	
11-Sep-09	17545	17546	11L	Nest	72	26.7	32.6	28.4	14.9	7.9	
11-Sep-09	17547		11L	Nest	72	27.4	32.3	29.2	15.2	7.7	
11-Sep-09	17548	17549	11L	Nest	72	28	33	27.9	16.2	7.7	
11-Sep-09	17550	17551	11L	Nest	72	26.7	31.9	28.3	16.2	7.7	
11-Sep-09	17552		11L	Nest	72	28.7	32.4	27.8	15.5	7.7	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
11-Sep-09	17553	17554	11L	Nest	72	27.5	32.8	28.1	16.2	8.2	
11-Sep-09	17555	17556	11L	Nest	72	28.2	31.7	27.7	16	7.5	
11-Sep-09	17557		11L	Nest	72	27.9	32.6	27.8	15.9	7.9	
11-Sep-09	17558	17559	11L	Nest	72	27.7	31.8	26.8	16.2	7.1	
11-Sep-09	17560		11L	Nest	72	27.8	31.8	27.5	16.5	7.9	
14-Sep-09	17598		10R11L	Nest	72	27.4	31.4	25.9	14.9	6.8	
14-Sep-09	17599	17600	10R11L	Nest	72	27.9	31.7	27.1	15.9	7.2	
14-Sep-09	17601	17602	10R11L	Nest	72	26.9	31.9	28.1	15.9	7.7	
14-Sep-09	17603		10R11L	Nest	72	27.6	32.2	27.2	16.1	7.1	
31-Mar-10	61749		10R12L	Nest	73	28.4	32.2	27.8	16.1	8.6	
31-Mar-10	61750		10R12L	Nest	73	28.3	31.7	28.6	16.7	8.4	anom V5
31-Mar-10	61752		10R12L	Nest	73	28.9	32	27.2	16.9	8.2	Anom V5
31-Mar-10	61753	61754	10R12L	Nest	73	29.5	32.3	28.4	17.4	8.7	Anom V4-V5, Extra costals on R
31-Mar-10	61755		10R12L	Nest	73	29.2	32.4	28.3	16.8	8.8	
31-Mar-10	61756	61757	10R12L	Nest	73	29.4	31.7	26.8	16.7	8.4	
31-Mar-10	61758	61760	10R12L	Nest	73	28.9	31	27.9	15.5	8	Anom V5
31-Mar-10	61761	61762	10R12L	Nest	73	30.1	32.8	28.1	16.1	8.8	Anom V5, 13 R Marginals
31-Mar-10	61763		10R12L	Nest	73	29.5	32.1	27.1	17.1	8.9	Anom V5
31-Mar-10	61764	61765	10R12L	Nest	73	29.4	32.6	27.9	17	8.7	
31-Mar-10	61766	61767	10R12L	Nest	73	29.7	33.5	28.3	17.2	9.1	
31-Mar-10	61768		10R12L	Nest	73	29.3	32.3	28.8	15.8	8.8	Anom V5, 13 R Marginals
16-Sep-09	17670		10R12R	Nest	74	26.7	29.6	27.2	15.6	6.9	Anom V5
16-Sep-09	17672		10R12R	Nest	74	28	30.5	27.1	15.8	6.9	
16-Sep-09	17673	17674	10R12R	Nest	74	26.7	30.5	26.3	15	6.6	
16-Sep-09	17675		10R12R	Nest	74	27.2	31.1	26.8	15.4	6.7	
16-Sep-09	17677		10R12R	Nest	74	26.6	29.7	26.3	15.7	6.6	Anom V1
16-Sep-09	17678	17679	10R12R	Nest	74	28.4	30.7	26.4	15.3	6.9	13 R marg; Anom V5
16-Sep-09	17680		10R12R	Nest	74	25.8	29.8	26.4	15.7	6.5	
16-Sep-09	17681	17682	10R12R	Nest	74	25.9	30	26.7	15.9	6.6	
16-Sep-09	17683	17684	10R12R	Nest	74	27.1	30	26.7	14.7	6.1	Anom V5
16-Sep-09	17685		10R12R	Nest	74	26.6	28.6	27.1	14.5	6.4	
16-Sep-09	17686	17687	10R12R	Nest	74	25.6	28.7	25.6	15.3	6.1	
16-Sep-09	17688	17689	10R12R	Nest	74	28	28.8	25.3	14.7	6.2	
29-Sep-09	60748		10R11L	Nest	74	27.1	30.6	25.6	15.4	6.4	
27-Oct-09	61035		10R11L	Nest	75	24.9	30.2	23.6	16.5	6.5	Anom V5; Deformed plastron
30-Mar-10	61299	61300	10R12L	Nest	75	28.6	32.5	27.9	15.7	7.7	
30-Mar-10	61301		10R12L	Nest	75	28.2	31.7	27	15.8	7.3	Anom V4-5
30-Mar-10	61302	61303	10R12L	Nest	75	26.4	30.6	28.2	15.4	6.9	
30-Mar-10	61304		10R12L	Nest	75	28.7	31.4	27.5	15.7	7.6	
30-Mar-10	61306		10R12L	Nest	75	26.4	30.8	26.7	14.8	6.4	
30-Mar-10	61307	61308	10R12L	Nest	75	28.1	31.4	27.6	15.8	7.6	
30-Mar-10	61309		10R12L	Nest	75	29.1	32.6	27.7	15.9	8.1	
30-Mar-10	61310	61311	10R12L	Nest	75	28.9	32.7	28	15.1	7.5	Anom V5
30-Mar-10	61312	61313	10R12L	Nest	75	27.8	31.8	27.1	14.7	7.2	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61314		10R12L	Nest	75	27.3	30.8	28.6	15.3	7.3	
30-Mar-10	61315	61316	10R12L	Nest	75	27.6	31	27.2	15.6	7.4	
30-Mar-10	61317		10R12L	Nest	75	28.8	31.3	26.9	15.1	7.6	Anom V5 26 Marg
31-Aug-09	17195	17196	10R11L	Nest	76	27.8	31.9	28.2	15.7	7.3	
31-Aug-09	17197		10R11L	Nest	76	28.9	32.4	28.4	16.2	7.7	
31-Aug-09	17199		10R11L	Nest	76	28.7	32.9	29.4	15.5	8.2	
1-Sep-09	17323		10R11L	Nest	76	27.2	30.5	26.8	16.3	7.4	
1-Sep-09	17325		10R11L	Nest	76	28.7	32.6	26.7	16.4	8.3	
1-Sep-09	17326	17327	6R7L	Nest	76	26.7	21.8	26.8	16.3	7.7	Very deformed carapace: 4 vertebrals; 3 L costals; 2 R costals; 8 R marginals; 9 L marginals
1-Sep-09	17328		10R11L	Nest	76	28.9	31.4	27.7	15.5	7.7	
1-Sep-09	17329	17330	10R11L	Nest	76	28.7	31.8	28	16.1	7.7	
1-Sep-09	17331	17332	10R11L	Nest	76	29.1	33.5	28.3	17	8.5	
1-Sep-09	17333		10R11L	Nest	76	29.9	33	28.9	16.3	8.2	
1-Sep-09	17334	17335	10R11L	Nest	76	29.5	32.5	28.4	15.9	8	
1-Sep-09	17336	17337	10R11L	Nest	76	29.3	33.2	28.9	15.9	8.2	
19-Aug-09	16933		1R	Nest	77	27.9	32.4	28.7	16.5	9.1	
19-Aug-09	16935		1R	Nest	77	27.1	32.3	28.6	16.6	8.4	
19-Aug-09	16936	16937	1R	Nest	77	28.1	33.1	28.8	17.2	9	
19-Aug-09	16938		1R	Nest	77	28.3	32.3	28.7	16.7	8.8	
19-Aug-09	16939	16940	1R	Nest	77	27.7	32.2	28.8	17.1	9.1	
19-Aug-09	16941	16942	1R	Nest	77	26.1	31.9	27.7	16.7	8.9	
19-Aug-09	16943		1R	Nest	77	28.2	32.6	29.4	17.2	9.4	
19-Aug-09	16944	16945	1R	Nest	77	27.4	32.6	29	17.3	9.2	
19-Aug-09	16946	16947	1R	Nest	77	27.3	32.9	29.4	17	9.1	
19-Aug-09	16948		1R	Nest	77	28.3	32.6	27	16.8	9	
19-Aug-09	16949	16950	1R	Nest	77	29.4	32.9	28.9	17.3	9.4	
19-Aug-09	16968		10R11L	Nest	77	27.4	33.3	29.6	16.1	8.6	
1-Sep-09	17356		10R11L	Nest	77	28.4	33.3	28.7	17.5	9.5	
12-Oct-09	60929		10R11L	Nest	78	28.8	32.4	27.9	15.7	7.7	13 R marginals
12-Oct-09	60930	60931	10R11L	Nest	78	28.1	32.3	28.6	15.6	7.7	Anom V5
12-Oct-09	60932		10R11L	Nest	78	28.1	32.1	28.4	16	7.8	
12-Oct-09	60933	60934	10R11L	Nest	78	27.2	31.8	27.8	15.5	7.3	26 marginals
12-Oct-09	60935		10R11L	Nest	78	27	31.6	28.4	15	7	
12-Oct-09	60937		10R11L	Nest	78	25.7	31	27.7	14.9	6.7	
12-Oct-09	60938	60939	10R11L	Nest	78	28.5	32.2	28.8	16.2	7.8	
12-Oct-09	60940		10R11L	Nest	78	27.8	31.6	27.9	15	7	
12-Oct-09	60941	60942	10R11L	Nest	78	27.4	31.3	28.4	15.6	7.4	
12-Oct-09	60943	60944	10R11L	Nest	78	28.7	31.2	27.7	15.1	7.2	
12-Oct-09	60945		10R11L	Nest	78	28.2	32.2	27.3	15.5	7.5	
12-Oct-09	60946	60947	10R11L	Nest	78	28.7	32.2	28	15.3	7.8	
12-Oct-09	60948		10R11L	Nest	78	27.5	32.1	28.1	15.2	7.3	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
12-Oct-09	60949	60950	10R11L	Nest	78	23.8	30.5	26.2	17.4	6.9	6 R costals; Deformed carapace & plastron
12-Oct-09	60951		10R11L	Nest	78	28.8	32.8	28.9	17	8.4	
12-Oct-09	60953		10R11L	Nest	78	27.5	31.8	28	14.5	6.8	
24-Aug-09	17025	17026	10R11L	Nest	80	25.3	27.2	23.9	15.6	6.7	Damage to carapace- V1.
15-Sep-09	17613		10R11L	Nest	80	28.6	32	28.2	16.4	7.6	
15-Sep-09	17614	17615	10R11L	Nest	80	28.4	31.7	27.5	15.8	7.3	
15-Sep-09	17616		10R11L	Nest	80	27.9	32.2	28	16	7.6	
15-Sep-09	17617	17618	10R11L	Nest	80	29.1	32.1	28.7	16	7.9	
15-Sep-09	17619	17620	10R11L	Nest	80	28.5	32.1	28.7	15.8	7.6	
15-Sep-09	17621		10R11L	Nest	80	26.4	30.7	26.1	15.4	6.3	carapace damage
15-Sep-09	17622	17623	10R11L	Nest	80	28.9	32	28.7	16	7.8	anom V3,5
15-Sep-09	17624		10R11L	Nest	80	27.9	31.6	27.7	15.7	7.2	Anom V5
15-Sep-09	17626		10R11L	Nest	80	28.4	32.4	28.7	16.4	7.9	
15-Sep-09	17627	17628	10R11L	Nest	80	28.1	32.4	29.3	14.9	7.3	
15-Sep-09	17629		10R11L	Nest	80	27.8	31.7	29.3	15.6	7.7	
22-Mar-10	61120	61121	10R12L	Nest	81	27.9	32.3	26.6	15.4	7.5	
22-Mar-10	61122		10R12L	Nest	81	26.4	30.5	26	14.2	6.3	
22-Mar-10	61124		10R12L	Nest	81	28.6	32.7	27.1	15.3	7.2	
22-Mar-10	61125	61126	10R12L	Nest	81	28.5	32	27.2	14.7	7	
22-Mar-10	61127		10R12L	Nest	81	27	30.9	26.8	15.1	6.9	
22-Mar-10	61128	61129	10R12L	Nest	81	27.7	30.9	25.8	14.9	6.5	
22-Mar-10	61130	61131	10R12L	Nest	81	26.7	30.4	26	14.2	6.3	
22-Mar-10	61132		10R12L	Nest	81	27	30.9	26.9	14.4	6.8	
22-Mar-10	61133	61134	10R12L	Nest	81	27.3	30.9	26.7	15.6	7	
22-Mar-10	61135		10R12L	Nest	81	28	32.4	27.1	15.2	6.8	
30-Mar-10	61595		10R12L	Nest	81	26.8	30.3	27.1	15.4	6.9	
30-Mar-10	61596	61597	10R12L	Nest	81	26.2	30.4	26.2	14.5	6.4	
30-Mar-10	61598		10R12L	Nest	81	26	30	26	14.6	6.4	
30-Mar-10	61599	61600	10R12L	Nest	81	26.4	30.5	26	14.5	6.5	
30-Mar-10	61601	61602	10R12L	Nest	81	26.9	31.2	27.3	14.8	6.8	
28-Sep-09	60691	60692	10R11L	Nest	82	27.8	32.3	28.1	15.5	7.5	
28-Sep-09	60693		10R11L	Nest	82	28.9	32	27.3	15.5	7.3	
28-Sep-09	60694	60695	10R11L	Nest	82	27.8	32.4	27.1	15.8	7.1	
28-Sep-09	60696	60697	10R11L	Nest	82	27.4	31.6	26.4	15.1	7.1	
28-Sep-09	60698		10R11L	Nest	82	27.5	31.8	27.8	16.7	7.6	
28-Sep-09	60699	60700	10R11L	Nest	82	28.5	32.4	28.9	15.2	7.8	
28-Sep-09	60701		10R11L	Nest	82	28.2	32.4	27.3	15.2	7.2	Anom V5; 26 marginals
28-Sep-09	60702	60703	10R11L	Nest	82	28.2	33.3	28.5	15	7.3	
28-Sep-09	60704	60705	10R11L	Nest	82	27.6	32.1	27.7	15.7	7.2	Anom V5
28-Sep-09	60706		10R11L	Nest	82	27.6	31.6	27	15.1	7.1	Anom V5
28-Sep-09	60707	60708	10R11L	Nest	82	28.4	32.1	27.3	15.8	7.5	
28-Sep-09	60709		10R11L	Nest	82	28.5	32.5	28.4	14.9	7.4	
28-Sep-09	60710	60711	10R11L	Nest	82	28.4	33	27.7	15.4	7.6	
30-Mar-10	61498		10R12L	Nest	85	28.9	32.4	29.1	15.9	8.4	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61499	61500	10R12L	Nest	85	27.4	31.7	27.1	16.3	8	
30-Mar-10	61501		10R12L	Nest	85	29	32.3	26.9	16.4	7.8	
30-Mar-10	61503		10R12L	Nest	85	28.2	32.5	29.2	16.3	8.2	
30-Mar-10	61504	60505	10R12L	Nest	85	27.2	31.2	28	15.9	7.5	
30-Mar-10	61506		10R12L	Nest	85	28.9	33.4	30.1	16.3	8.7	
30-Mar-10	61507	61508	10R12L	Nest	85	29.5	32.7	28.8	16.4	8.3	Anom V4
30-Mar-10	61509		10R12L	Nest	85	29.2	33.2	30.1	16.8	8.6	
30-Mar-10	61511		10R12L	Nest	85	28.3	32	27.1	16	7.6	
30-Mar-10	61328	61329	10R12L	Nest	86	29	31.1	28.5	15.4	8.2	
30-Mar-10	61330		10R12L	Nest	86	28	30.9	28.3	15.7	7.7	
30-Mar-10	61332		10R12L	Nest	86	29	31.9	28.3	15.7	8.1	
30-Mar-10	61333		10R12L	Nest	86	28.5	30.7	28.1	15.9	8.2	
30-Mar-10	61335		10R12L	Nest	86	28.4	31.9	28.8	16.1	7.9	
30-Mar-10	61336	61337	10R12L	Nest	86	26.7	30.4	27.5	16.1	7.7	
30-Mar-10	61338	61339	10R12L	Nest	86	27.2	30	27.4	15.3	7.1	
30-Mar-10	61340		10R12L	Nest	86	28.5	31.3	28.1	15.6	7.9	
30-Mar-10	61341	61342	10R12L	Nest	86	28.5	30.6	28.9	15.6	7.9	
30-Mar-10	61343		10R12L	Nest	86	26.5	29.3	25.6	15.4	6.6	
21-Aug-09	16979		10R11L	Nest	87	24.5	26.7	22.1	14.9	4.8	
1-Sep-09	17338		10R11L	Nest	87	27.5	31.1	27.4	16.5	7.8	
1-Sep-09	17339	17340	10R11L	Nest	87	27.1	30.8	27.5	15.8	7.3	
1-Sep-09	17341		10R11L	Nest	87	27.7	31.1	27.5	15.5	7.4	
1-Sep-09	17343		10R11L	Nest	87	28	30.6	26.8	15.4	7	
1-Sep-09	17344	17345	10R11L	Nest	87	28	32.3	27.2	15.8	7.2	
1-Sep-09	17346		10R11L	Nest	87	27.1	31.3	27.7	16.3	7.6	
1-Sep-09	17348		10R11L	Nest	87	26.4	30.5	27.1	16	6.7	Anom V5
1-Sep-09	17349	17350	10R11L	Nest	87	27.8	31.5	28.1	16.4	7.5	
1-Sep-09	17351		10R11L	Nest	87	26.7	30.7	27.4	15.4	7	
1-Sep-09	17352	17353	10R11L	Nest	87	26.2	30.3	27.7	16.2	7.2	
1-Sep-09	17354	17355	10R11L	Nest	87	27.7	31.6	28.4	15.9	7.9	
30-Mar-10	61472		10R12L	Nest	88	26.8	30.1	26.7	14.3	6.6	Anom V5
30-Mar-10	61475	61476	10R12L	Nest	88	28.3	31.6	28.8	16.4	8.4	
30-Mar-10	61474		10R12L	Nest	88	27.9	32	27.2	15.8	7.8	
30-Mar-10	61477		10R12L	Nest	88	27.6	31.6	27.4	15.9	7.6	
30-Mar-10	61478	61479	10R12L	Nest	88	29.3	32.6	28.1	15.4	7.7	
30-Mar-10	61480		10R12L	Nest	88	27.7	31.8	28.2	16.1	7.9	
30-Mar-10	61482		10R12L	Nest	88	28.8	31.3	27.9	16.5	7.7	
30-Mar-10	61483	61484	10R12L	Nest	88	28.3	32	28	16.1	7.9	
30-Mar-10	61485		10R12L	Nest	88	27.9	32	27.3	16	7.6	
30-Mar-10	61486	61487	10R12L	Nest	88	25.8	29.5	26.8	15	6.7	
30-Mar-10	61488	61489	10R12L	Nest	88	28.1	32.2	29.1	14.9	8	
30-Mar-10	61490		10R12L	Nest	88	27	31.4	28	16.1	8.1	
30-Mar-10	61491	61492	10R12L	Nest	88	28.3	31.1	28	16.1	7.5	
30-Mar-10	61493		10R12L	Nest	88	27.1	31.4	28	15.8	7.9	
30-Mar-10	61495		10R12L	Nest	88	26.8	30.7	27.3	15.6	7.2	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61496	61497	10R12L	Nest	88	27.3	31.4	27.6	15.8	7.4	
22-Mar-10	61156		10R12L	Nest	89	26.2	29.3	26.4	15.3	6.5	
30-Mar-10	61388	61389	10R12L	Nest	89	28.3	31.8	30.3	16.1	8.4	
30-Mar-10	61390		10R12L	Nest	89	23.3	26.4	24.3	14.7	5.3	
30-Mar-10	61391	61392	10R12L	Nest	89	28.9	32	28.6	15.7	7.6	
30-Mar-10	61393	61394	10R12L	Nest	89	29.3	29.6	30.1	16.6	8.1	
30-Mar-10	61603		10R12L	Nest	90	29.5	31.7	26	15.9	7.7	
30-Mar-10	61604	61605	10R12L	Nest	90	28.6	32.1	28.8	15.4	7.5	
30-Mar-10	61606		10R12L	Nest	90	29.3	33.1	28.6	16	8	
11-Sep-09	17514		10R11L	Nest	91	26.1	30.4	26.8	15.4	7	
11-Sep-09	17515		10R11L	Nest	91	25.7	30.6	26.2	15.9	7.1	
11-Sep-09	17517	17518	10R11L	Nest	91	25.2	29.3	26.1	15.8	6.4	
11-Sep-09	17519		10R11L	Nest	91	25.6	31.5	26.4	16.6	6.9	
11-Sep-09	17521		10R11L	Nest	91	25.5	31.7	27.7	15.3	6.9	
11-Sep-09	17522	17523	10R11L	Nest	91	26.5	30.5	25.9	15.1	6.7	
11-Sep-09	17524		10R11L	Nest	91	26.1	32.1	26.7	16.4	7.3	
11-Sep-09	17525	17526	10R11L	Nest	91	25.2	31.4	25.8	16.5	6.7	
11-Sep-09	17527	17528	10R11L	Nest	91	27	31	25.9	15.8	7	
11-Sep-09	17529		10R11L	Nest	91	25.3	30.7	25.4	15.4	6.5	
11-Sep-09	17530	17531	10R11L	Nest	91	25.7	30.6	25.3	15.2	6.2	
11-Sep-09	17532		10R11L	Nest	91	26.1	31.1	25.9	16.5	6.9	
11-Sep-09	17534		10R11L	Nest	91	27.1	31.1	26.3	16.1	6.7	
11-Sep-09	17535	17536	10R11L	Nest	91	27.7	31.7	27	16.4	7.1	
30-Mar-10	61541	61542	10R12L	Nest	93	25.3	29.8	26.8	15.1	6.6	
30-Mar-10	61543		10R12L	Nest	93	25	29.9	25.4	15.7	6.5	
30-Mar-10	61544	61545	10R12L	Nest	93	27.3	31.1	26.7	15.3	7.2	
30-Mar-10	61546		10R12L	Nest	93	25.5	29.8	26.1	15	6.4	
30-Mar-10	61548		10R12L	Nest	93	27.5	30.6	27.2	16	7.4	
30-Mar-10	61549	61550	10R12L	Nest	93	25	29	26.3	14.4	6.4	
10-Sep-09	17501		10R11L	Nest	94	27.4	31.9	27.7	15.2	7	
10-Sep-09	17503		10R11L	Nest	94	26.6	30.5	26	16.1	7.1	
22-Sep-09	17783		10R11L	Nest	94	27.1	31.5	27.7	16	7.4	
22-Sep-09	17784	17785	10R11L	Nest	94	27.9	32.6	28.9	15.9	8.2	
22-Sep-09	17786	17787	10R11L	Nest	94	27.2	31.8	27.1	16	7.6	
22-Sep-09	17788		10R11L	Nest	94	26.5	31.2	26.6	15.6	7.2	
16-Sep-09	17647		10R11L	Nest	95	27.4	32.4	27.7	16.3	7.9	
16-Sep-09	17648	17649	10R11R	Nest	95	27.5	30.7	27.1	15.3	6.9	
16-Sep-09	17650	17651	10R11R	Nest	95	28.4	31.4	27.3	15.7	7.3	
16-Sep-09	17652		10R11R	Nest	95	27.8	31.8	27.2	15.7	7.3	
16-Sep-09	17653	17654	10R11R	Nest	95	27.4	32	27.6	15.3	7.1	
16-Sep-09	17655	17656	10R11R	Nest	95	28.5	32.4	28.5	15.6	7.9	
16-Sep-09	17657		10R11R	Nest	95	27.8	31	26.7	15.3	6.8	
16-Sep-09	17658	17659	10R11R	Nest	95	26.7	29.9	26.6	15.7	6.7	
16-Sep-09	17660	17661	10R11R	Nest	95	28.1	32.3	28	15.8	7.6	
16-Sep-09	17662		10R11R	Nest	95	28.3	32.1	28.9	15.4	7.6	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
16-Sep-09	17663	17664	10R11R	Nest	95	27	31.7	28.2	15.7	7.8	
28-Sep-09	17807	17808	10R11L	Nest	95	29.1	31.7	28.7	15.5	7.6	
28-Sep-09	17809		10R11L	Nest	95	27.6	31	28	15.4	6.8	
28-Sep-09	60650		10R11L	Nest	95	25.4	29.6	25.1	15.8	6.2	
30-Mar-10	61196		10R12L	Nest	96	26.5	29.9	25.1	14.7	6.1	
30-Mar-10	61198		10R12L	Nest	96	25.3	28.1	24.7	15.1	6	
30-Mar-10	61199	61200	10R12L	Nest	96	26.6	30.4	26.1	14.5	6.4	Anom V1
30-Mar-10	61201		10R12L	Nest	96	25.9	28.9	24.9	14.4	6	Anom V4-5
31-Mar-10	61771		10R12L	Nest	97	25.7	29	26.3	15	6.1	
31-Mar-10	61773		10R12L	Nest	97	24.7	28.3	25.5	15.4	6	
30-Mar-10	61715		10R12L	Nest	99	23.6	26.7	24.5	13.7	5.2	Anom V5; 26 marginals
30-Mar-10	61716	61717	10R12L	Nest	99	24.8	25.7	24.4	13.8	5.1	Anom V2-V4
30-Mar-10	6E+06		10R12L	Nest	99	25.1	26.5	24.3	14.4	5.5	Anom V5
30-Mar-10	61719	61720	10R12L	Nest	99	23.7	26.7	23.6	13.7	5	
30-Mar-10	61721		10R12L	Nest	99	25.1	27.3	24.5	13.1	5.2	Anom V2-V3
30-Mar-10	61723		10R12L	Nest	99	23.8	27.2	23.9	14.4	5.4	
30-Mar-10	61724	61725	10R12L	Nest	99	23.4	26.1	24.5	13.7	5.1	Anom V5
19-Aug-09	16966		10R11L	Nest	100	24.9	28.1	24.7	15.2	5.4	
1-Sep-09	17357	17358	10R11L	Nest	100	25.3	29.5	26.2	15.7	6.4	
31-Mar-10	61855	61856	10R12L	Nest	103	26.6	28.6	26.5	16	6.9	13 Marg on R
31-Mar-10	61857		10R12L	Nest	103	27.7	30.4	27.2	16.8	7.1	
31-Mar-10	61859		10R12L	Nest	103	27.1	31.4	29.3	14.8	7.4	
31-Mar-10	61860	61861	10R12L	Nest	103	27	29.2	26.2	15.5	6.5	
31-Mar-10	61862		10R12L	Nest	103	27	30.6	27.9	15.2	7.3	
31-Mar-10	61863	61864	10R12L	Nest	103	28.5	29.4	27.1	16.1	7.3	
31-Mar-10	61865		10R12L	Nest	103	28.8	31.2	29.3	15.1	7.8	
31-Mar-10	61867		10R12L	Nest	103	27.9	30	27.7	15.2	6.5	Anom V5
31-Mar-10	61868	61869	10R12L	Nest	103	27.5	30.2	27.1	15.8	7	
31-Mar-10	61870		10R12L	Nest	103	28	31.3	28.6	14.1	7.5	
31-Mar-10	61872		10R12L	Nest	103	27.6	30.5	26.4	15	6.1	
31-Mar-10	61873		10R12L	Nest	103	28.3	30.5	27.8	15.6	7.6	
31-Mar-10	61875		10R12L	Nest	103	28.5	31.1	28.2	15.4	7.5	Anom V4-V5
31-Mar-10	61876	61877	10R12L	Nest	103	26.4	29.1	26.8	14.9	6.4	
31-Mar-10	61878		10R12L	Nest	103	26.7	30.2	27.9	14.7	7.1	Anom V4-V5
31-Mar-10	61808	61809	10R12L	Nest	104	26.5	29.7	28.2	15.9	7.5	
31-Mar-10	61810		10R12L	Nest	104	24.8	28.5	26	14.4	5.9	
31-Mar-10	61812		10R12L	Nest	104	25.4	30.3	28	14.9	6.7	
31-Mar-10	61813	61814	10R12L	Nest	104	26.5	29.4	27.2	15.8	7	
31-Mar-10	61815		10R12L	Nest	104	24.8	28.4	26.3	14.5	6	
31-Mar-10	61816	61817	10R12L	Nest	104	25.4	28	25.6	14.5	5.8	
31-Mar-10	61818		10R12L	Nest	104	25.8	28.6	26.1	14.8	6.2	
31-Mar-10	61820		10R12L	Nest	104	25.3	28.4	24.6	15.2	6	
31-Mar-10	61821	61822	10R12L	Nest	104	25.7	29.7	26.9	14.8	6.4	
31-Mar-10	61823		10R12L	Nest	104	26.2	29.8	27.1	15.7	6.9	
31-Mar-10	61825		10R12L	Nest	104	25.5	29.9	26.3	16.2	7.1	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
31-Mar-10	61826	61827	10R12L	Nest	104	25.8	29.9	27.3	15.4	6.9	
31-Mar-10	61828		10R12L	Nest	104	26.7	29.5	26.5	15.7	6.5	
31-Mar-10	61829	61830	10R12L	Nest	104	24.6	28.5	26.9	14.9	6.6	
31-Mar-10	61831		10R12L	Nest	104	26.1	30.9	27.5	15	6.9	
31-Mar-10	61833		10R12L	Nest	104	27.3	30.4	28.7	15.8	7.5	Anom V5
31-Mar-10	61834	61835	10R12L	Nest	104	25.9	30	27.7	15.8	7.1	
31-Mar-10	61879	61880	10R12L	Nest	105	28.3	30.6	27.4	15.9	7.7	
31-Mar-10	61881		10R12L	Nest	105	27.7	30.4	27.5	16	7.4	
31-Mar-10	61883		10R12L	Nest	105	28.6	32.2	29.1	16.3	8.2	
31-Mar-10	61884	61885	10R12L	Nest	105	28.5	30.8	26.9	16.5	7.6	
31-Aug-09	17218	17219	10R11L	Nest	106	24.2	25.4	22.3	14.7	4.9	
17-Sep-09	17690		9L10L	Nest	106	29.7	31.8	28.8	16.6	8.5	
17-Sep-09	17691	17692	9L10L	Nest	106	27.5	30.9	28.3	17.1	7.8	
17-Sep-09	17693		9L10L	Nest	106	28.8	31.7	29.4	16	7.9	Anom V1
17-Sep-09	17695		9L10L	Nest	106	29.6	31.6	28.2	15.2	8.1	6 R costals
17-Sep-09	17696	17697	9L10L	Nest	106	28.7	31.7	28.2	15.8	7.9	
17-Sep-09	17698		9L10L	Nest	106	28.3	30.6	26.3	16.5	7.1	
17-Sep-09	17699	17700	9L10L	Nest	106	29.1	31.8	29.3	16.1	8.3	11 R Marginals
17-Sep-09	17701	17702	9L10L	Nest	106	28.8	31.4	27.5	16.5	7.7	
17-Sep-09	17703		9L10L	Nest	106	29.1	31.2	28.8	16.5	8.1	
17-Sep-09	17704	17705	9L10L	Nest	106	28.1	30.5	28	16.2	7.3	Anom L 2nd costal
17-Sep-09	17706		10R11L	Nest	106	29.3	32	29.5	15.9	7.9	
17-Sep-09	17708		10R11L	Nest	106	28.2	31.6	28.6	16.3	8.1	
30-Mar-10	61243		10R12L	Nest	107	27.3	28.5	27.6	16.1	7.2	Anom V3
30-Mar-10	61244	61245	10R12L	Nest	107	27	30.1	27.6	16	7.2	
30-Mar-10	61246		10R12L	Nest	107	25.9	29	27.7	15.7	6.5	
30-Mar-10	61248		10R12L	Nest	107	26.4	29.8	26.6	16.7	7	
30-Mar-10	61249	61250	10R12L	Nest	107	26.7	28.3	28.4	16.6	7.2	Anom V5
30-Mar-10	61251		10R12L	Nest	107	27.4	29.4	27	16.2	7.1	
30-Mar-10	61252	61253	10R12L	Nest	107	26.4	29.3	27.8	16.4	7.3	
30-Mar-10	61254		10R12L	Nest	107	26.8	29.4	26.3	16.4	6.9	
30-Mar-10	61256		10R12L	Nest	107	25.9	29.5	26.8	15.2	6.6	
16-Sep-09	17630	17631	9R10R	Nest	108	27.6	33	27.9	16.6	7.6	
16-Sep-09	17632	17633	9R10R	Nest	108	27.2	31.8	28.8	16.2	7.7	
16-Sep-09	17634		9R10R	Nest	108	26.2	30.1	26.6	16.3	7.5	no nuchal
16-Sep-09	17635	17636	9R10R	Nest	108	26.7	31.9	28.5	15.6	7	nuchal divided
16-Sep-09	17637	17638	9R10R	Nest	108	27.3	33.1	28.3	16.8	7.8	
16-Sep-09	17639		9R10R	Nest	108	26.6	32	28.3	15.1	7.7	
16-Sep-09	17640	17641	9R10R	Nest	108	28.3	31.9	27.4	15.9	7.5	
16-Sep-09	17642		9R10R	Nest	108	26.6	31.7	28.8	15.5	7.3	
16-Sep-09	17644		9R10R	Nest	108	28.3	32.6	29	16.3	7.8	
16-Sep-09	17645	17646	9R10R	Nest	108	28.7	33	28.7	16.3	8	
23-Sep-09	17789	17790	10R11L	Nest	108	27.2	32	28.2	15.5	7.4	
23-Sep-09	17791		10R11L	Nest	108	27.3	32	28.6	15.9	7.6	
30-Mar-10	61232		10R12L	Nest	109	27.5	31.1	27.7	15.9	7.9	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61233	61234	10R12L	Nest	109	27.2	30.7	27.5	15.9	7.4	
30-Mar-10	61235		10R12L	Nest	109	25.5	29.7	26.9	15.6	7.1	
30-Mar-10	61236	61237	10R12L	Nest	109	23.2	27.5	25.9	13.9	5.9	
30-Mar-10	61238		10R12L	Nest	109	26.6	30.4	28.3	16.3	7.7	
30-Mar-10	61239	61240	10R12L	Nest	109	26.8	31.3	27.4	16.1	7.9	
30-Mar-10	61241	61242	10R12L	Nest	109	25.2	28.6	25.7	14.9	6.4	
24-Aug-09	17027		10R11L	Nest	110	28.3	31.3	27.7	15.9	7.6	
24-Aug-09	17028	17029	10R11L	Nest	110	27.8	31.2	27.6	16.4	8.1	
25-Aug-09	17115	17116	10R11L	Nest	110	29.7	32.3	28.3	15.8	8.4	
26-Aug-09	17123	17124	10R11L	Nest	110	28.7	32	27.9	15.8	8	
26-Aug-09	17125		10R11L	Nest	110	27.8	32.1	27	16.1	7.6	
31-Aug-09	17220		10R11L	Nest	110	29.4	33.5	29.4	16.2	8.4	
31-Aug-09	17221	17222	10R11L	Nest	110	29.6	33.4	28.9	16.2	8.3	26 marginals
31-Aug-09	17223	17224	10R11L	Nest	110	28.2	32.9	28	15.4	7.6	
1-Sep-09	17315		10R11L	Nest	110	29.1	32.2	27.7	15.7	7.7	
1-Sep-09	17317		10R11L	Nest	110	29.2	33.9	29.3	16.4	8.7	
20-Oct-09	61012	61013	10R11L	Nest	111	27.3	32.1	28.1	16	7.7	
20-Oct-09	61014		10R11L	Nest	111	27.5	33.2	29.4	16.3	8.1	
20-Oct-09	61015	61016	10R11L	Nest	111	28	32.2	29.3	16	8.1	
20-Oct-09	61017		10R11L	Nest	111	28.5	32.8	28.6	16.6	8.1	
20-Oct-09	61019		10R11L	Nest	111	28.9	33.8	29.2	16.2	8.4	
20-Oct-09	61020	61021	10R11L	Nest	111	28.7	32.5	27.9	16.1	8.1	
20-Oct-09	61022		10R11L	Nest	111	27.8	32.5	28.5	16.4	8.2	
20-Oct-09	61023	61024	10R11L	Nest	111	26.4	32	28.3	15.8	7.6	Anom V5
20-Oct-09	61025		10R11L	Nest	111	28	32	28.9	15.7	8.1	
20-Oct-09	61027		10R11L	Nest	111	28.2	32.2	28.5	15.8	7.8	
30-Mar-10	61345		10R12L	Nest	112	27.7	31.2	26.4	15.3	6.7	Anom V5
30-Mar-10	61346	61347	10R12L	Nest	112	26.6	30.4	27.3	15.1	6.8	
30-Mar-10	61348		10R12L	Nest	112	26.6	29.8	27.2	15.5	6.9	
30-Mar-10	61349	61350	10R12L	Nest	112	25.8	29.8	26.5	15.3	7	
30-Mar-10	61353		10R12L	Nest	112	25.4	28.8	25.1	15	5.9	
30-Mar-10	61354	61355	10R12L	Nest	112	26.8	30.5	26.9	15.7	6.9	
30-Mar-10	61356		10R12L	Nest	112	24.7	28.9	26	15.1	6	
30-Mar-10	61357	61358	10R12L	Nest	112	26.6	29.3	27.3	14.6	6.2	Anom V5
30-Mar-10	61359	61360	10R12L	Nest	112	27	30.6	27.3	15.2	6.9	Anom V5
30-Mar-10	61361		10R12L	Nest	112	26.7	29.8	26.5	15.8	6.9	Anom V4-5
31-Aug-09	17240		12R	Nest	113	27.7	31.3	27.4	16.2	7.7	
31-Aug-09	17241	17242	12R	Nest	113	28.2	30.6	27.6	16.2	7.3	
31-Aug-09	17243		12R	Nest	113	27.4	32.1	27.6	16.4	7.1	
31-Aug-09	17244	17245	12R	Nest	113	26.5	30.2	27.1	15.6	6.4	
31-Aug-09	17246	17247	12R	Nest	113	26.7	30.9	27.7	15.6	6.8	
31-Aug-09	17248		12R	Nest	113	27	30.9	27.4	15.7	6.9	nuchal divided
31-Aug-09	17249	17250	12R	Nest	113	27.3	30.8	26.5	15.6	7	nuchal divided
31-Aug-09	17251		12R	Nest	113	26.6	31.4	26.7	15.6	6.6	nuchal divided
31-Aug-09	17253		12R	Nest	113	26.8	30	27.1	15.8	7.1	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
31-Aug-09	17254	17255	12R	Nest	113	27.5	31.2	26.8	16.3	7.1	
31-Aug-09	17256		10R11L	Nest	113	26.3	29.9	26.4	15.6	6.5	
31-Aug-09	17258		10R11L	Nest	113	25.6	28.6	25.2	14.5	5.8	
31-Aug-09	17259	17260	10R11L	Nest	113	26.5	30.2	26.9	15.7	6.8	
31-Aug-09	17261		10R11L	Nest	113	26.4	30.6	26.4	15.9	6.5	
9-Sep-09	17486	17487	10R11L	Nest	113	26.1	28.9	26.3	15.5	6.8	
9-Sep-09	17488		10R11L	Nest	113	26.9	29.9	27.7	15	7	
9-Sep-09	17489	17490	10R11L	Nest	113	25.6	30.2	27.2	15.4	7.2	
31-Mar-10	61742		10R12L	Nest	114	27	30.2	27.2	15.4	6.7	
31-Mar-10	61744		10R12L	Nest	114	26.3	30.2	27.3	15.4	6.4	
31-Mar-10	61745	61746	10R12L	Nest	114	23.3	27.3	24.5	14.3	5.4	
31-Mar-10	61747		10R12L	Nest	114	21.8	25.6	21.2	12.8	3.9	
31-Mar-10	61836		10R12L	Nest	115	29.4	33.4	30.6	15.8	8.9	
31-Mar-10	61838		10R12L	Nest	115	30.2	33.9	31.1	15.8	9.2	
31-Mar-10	61839	61840	10R12L	Nest	115	30	33.9	30.8	16	8.9	
31-Mar-10	61841		10R12L	Nest	115	30	34.2	30.7	16.3	9.7	
31-Mar-10	61842	61843	10R12L	Nest	115	30.2	34.1	30.8	15.9	9.7	
31-Mar-10	61844		10R12L	Nest	115	29.5	33.8	30.1	16.1	9.1	
31-Mar-10	61846		10R12L	Nest	115	29.5	33	29.9	16.3	8.9	Anom V5
31-Mar-10	61847	61848	10R12L	Nest	115	29.2	32.7	29.5	16.5	8.8	
31-Mar-10	61849		10R12L	Nest	115	30.3	33.4	30.5	16.9	9.3	
31-Mar-10	61850	61851	10R12L	Nest	115	31.2	34.1	30.8	16.9	9.9	Damage to carapace
31-Mar-10	61852	61853	10R12L	Nest	115	30.3	34	29.2	16.2	8.7	
31-Mar-10	61854		10R12L	Nest	115	29.9	33.6	30.9	15.1	8.1	
31-Mar-10	61952		10R12L	Nest	116	26.1	29.2	26.6	15.5	6.6	
31-Mar-10	61954		10R12L	Nest	116	25.4	27.6	28.2	15	6.7	
31-Mar-10	61955	61956	10R12L	Nest	116	27.4	29.6	26.8	15.5	6.7	
31-Mar-10	61957		10R12L	Nest	116	27.1	30	27.9	15.1	7	
31-Mar-10	61959		10R12L	Nest	116	26.4	29.5	27	14.6	6.5	
31-Mar-10	61960	61961	10R12L	Nest	116	26.3	31	28.7	14.8	7.2	
31-Mar-10	61962		10R12L	Nest	116	27.4	31.1	28.1	15.6	7.4	
31-Mar-10	61963	61964	10R12L	Nest	116	26.8	29.6	26.9	14.9	6.7	Anom V5
31-Mar-10	61965		10R12L	Nest	116	26.6	29.5	27.2	15.4	6.9	
31-Mar-10	61967		10R12L	Nest	116	25.1	28.5	27.2	16.3	6.7	
31-Mar-10	61968		10R12L	Nest	116	26.3	29.6	26.4	14.9	6.5	
31-Mar-10	61969	61970	10R12L	Nest	116	26	29.3	27.8	14.7	6.5	
31-Mar-10	61971	61972	10R12L	Nest	116	27.3	30	27.6	15.8	7	
31-Mar-10	61973		10R12L	Nest	116	27.4	30.2	28.1	14.2	6.5	
31-Mar-10	61975		10R12L	Nest	116	26.2	29.6	27.7	15.3	6.5	
31-Mar-10	61976	61977	10R12L	Nest	116	25.1	28	26.2	14.4	5.8	
31-Mar-10	61978		10R12L	Nest	116	26.8	30.1	27.4	15.7	6.9	Anom V5
31-Mar-10	61923		10R12L	Nest	117	26.9	31.3	29.1	14.7	7.4	26 Marginals
31-Mar-10	61925		10R12L	Nest	117	27.6	30.6	27.7	14.6	6.9	
31-Mar-10	61926	61927	10R12L	Nest	117	24.3	27.4	25.1	15.6	5.8	
31-Mar-10	61928		10R12L	Nest	117	27.4	30.5	28.9	14	7.4	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
31-Mar-10	61929	61930	10R12L	Nest	117	25.5	28.5	25.4	14.8	5.7	
31-Mar-10	61931		10R12L	Nest	117	26.6	29.6	26.4	15.1	6.7	
31-Mar-10	61933		10R12L	Nest	117	27.4	29.9	27.9	16.3	7.2	
31-Mar-10	61934	61935	10R12L	Nest	117	26.7	29.6	27.1	14.7	6.4	
31-Mar-10	61936		10R12L	Nest	117	27.1	30.4	27.1	15.4	7.1	
30-Mar-10	61642		10R11L	Nest	119	27.6	31.7	29	15.3	8	
30-Mar-10	61643	61644	10R11L	Nest	119	26.8	31.2	27.8	15.3	7.4	Anom V4
30-Mar-10	61645		10R11L	Nest	119	26.4	31	27.5	15.6	7.8	
30-Mar-10	61646	61647	10R11L	Nest	119	26.5	31.3	26.8	14.9	7.1	
30-Mar-10	61648		10R11L	Nest	119	27.9	31.8	28	15.3	8.1	
30-Mar-10	61650		10R11L	Nest	119	28.2	32.4	29	15.5	8	
30-Mar-10	61651	61652	10R11L	Nest	119	28.2	31.9	28.4	16.2	8.4	
30-Mar-10	61653		10R11L	Nest	119	27.9	31.2	28.6	16.1	8.1	
30-Mar-10	61655		10R12L	Nest	119	28.1	32.3	28.1	16.2	8.3	
30-Mar-10	61656	61657	10R12L	Nest	119	28.4	33.5	29.1	15.6	8.5	
30-Mar-10	61658		10R12L	Nest	119	26	31.9	28.1	14.7	7.3	
30-Mar-10	61659	61660	10R12L	Nest	119	27.9	31.2	27.2	15.9	7.6	Anom V5
30-Mar-10	61661	61662	10R12L	Nest	119	27.2	31.7	28.6	14.8	7.7	
22-Sep-09	17748	17749	10R11L	Nest	120	27.4	32.1	28.4	15.7	7.5	Nuchal divided
22-Sep-09	17750	17751	10R11L	Nest	120	26.7	31.4	27.3	16.4	7.3	
22-Sep-09	17752		10R11L	Nest	120	28.2	33.4	27.3	16.5	7.5	
22-Sep-09	17753	17754	10R11L	Nest	120	28.2	32.3	29.4	15.8	7.8	Nuchal divided
22-Sep-09	17755		10R11L	Nest	120	28.2	32.1	29.1	16.1	7.7	11 L Marginals
22-Sep-09	17757		10R11L	Nest	120	29.3	32.3	26.1	16.1	7.5	Anom V5
22-Sep-09	17758	17759	10R11L	Nest	120	27.4	32.3	29.7	15.7	7.8	
22-Sep-09	17760		10R11L	Nest	120	27.7	32.3	28.1	16.4	7.8	
22-Sep-09	17761	17762	10R11L	Nest	120	26.7	30.7	27.8	15.9	7.4	
22-Sep-09	17763	17764	10R11L	Nest	120	27.1	32	28.6	16.5	7.5	
22-Sep-09	17765		10R11L	Nest	120	24.9	29.5	24.1	15.1	5.9	13 R marginals; Anom V5
23-Sep-09	17796		10R11L	Nest	120	26.4	31.7	28.4	17.2	7.8	
30-Sep-09	60778	60779	10R11L	Nest	120	28.7	33.1	28.5	16.6	7.5	
1-Oct-09	60780	60781	10R11L	Nest	120	28.2	32	29.4	15.6	7.3	
1-Oct-09	60782		10R11L	Nest	120	28.3	31	27.6	16.6	7	
31-Aug-09	17177		10R11L	Nest	121	23.9	26.2	21.7	16.6	6.1	yok sac still attached; 11 R marginals
31-Aug-09	17179		10R	Nest	121	28.3	32.3	28.1	16.6	7.9	
31-Aug-09	17180		10R	Nest	121	27.3	31.8	27.9	17.2	8.1	
31-Aug-09	17182		10R	Nest	121	27.6	32.6	28.4	16.4	8.1	
31-Aug-09	17184		10R	Nest	121	26.8	31.5	28.2	16.3	7.8	
31-Aug-09	17185	17186	10R	Nest	121	27.7	32.3	29.4	16.8	8.9	
31-Aug-09	17187		10R	Nest	121	26.3	30.6	27.6	15.9	7.6	
31-Aug-09	17189		10R	Nest	121	26.8	31.1	28.9	16.5	7.6	
31-Aug-09	17190	17191	10R	Nest	121	25.8	30.9	27.8	16.8	7.3	Anom V4; 5 L costals
31-Aug-09	17192		10R	Nest	121	26.9	30.4	27.4	16.1	7.4	nuchal divided
31-Aug-09	17193	17194	10R	Nest	121	28.3	32.9	28.5	16.7	8.6	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
1-Sep-09	17312		10R11L	Nest	121	26	30.5	27.2	16.6	7.6	
10-Sep-09	17496		10R11L	Nest	121	26.9	30.4	28.4	16.2	8	
4-Sep-09	17424	17425	10R11L	Nest	123	26.9	30.9	26.5	15.9	6.8	
4-Sep-09	17426		10R11L	Nest	123	27.6	31.9	28.9	15.9	7.4	nuchal divided
4-Sep-09	17427	17428	10R11L	Nest	123	26.2	30.5	27.2	16.2	6.9	nuchal divided; anom V4
4-Sep-09	17429	17430	10R11L	Nest	123	27.6	31.7	29	15.8	7.3	
4-Sep-09	17431		10R11L	Nest	123	24.1	28.3	26.1	15.6	6.7	no nuchal
21-Sep-09	17742		10R11L	Nest	123	26.3	31.3	27.3	15.9	7.4	
30-Mar-10	61362	61363	10R12L	Nest	124	27.2	31.5	28.4	15.7	7.7	
30-Mar-10	61364		10R12L	Nest	124	27.3	31.8	29.6	15	7.7	
30-Mar-10	61365	61366	10R12L	Nest	124	28.7	32.7	28.3	14.7	7.5	
30-Mar-10	61367	61368	10R12L	Nest	124	27.8	32.8	29.2	16	8	Anom V5
30-Mar-10	61369		10R12L	Nest	124	27.7	32.1	29.3	14.9	7.7	Anom V5
30-Mar-10	61370	61371	10R12L	Nest	124	28.7	32.7	29.6	15.7	8	
30-Mar-10	61372	61373	10R12L	Nest	124	27.9	32.7	29.1	15.8	8	
30-Mar-10	61374		10R12L	Nest	124	25.6	29.8	26.1	13.3	5.9	
30-Mar-10	61375	61376	10R12L	Nest	124	27.5	31.9	29	15.8	7.3	Anom V5
30-Mar-10	61377		10R12L	Nest	124	27.9	32.9	29.5	15.5	7.8	Anom V5
30-Mar-10	61379		10R12L	Nest	124	27.1	31.5	28.8	15.3	7.7	
30-Mar-10	61380	61381	10R12L	Nest	124	28	31.9	28.6	15.2	7.5	Anom V5
30-Mar-10	61382		10R12L	Nest	124	28.3	32.2	28.6	16.3	7.9	
30-Mar-10	61385	61386	10R12L	Nest	124	27.8	32	29.5	15.3	7.8	Anom V5
30-Mar-10	61383	61384	10R12L	Nest	124	28.3	32.2	29.2	15.2	7.7	
30-Mar-10	61387		10R12L	Nest	124	28.2	31.9	28.2	15.7	7.7	Anom V5
27-Aug-09	17130		10R11L	Nest	125	25.8	30.2	27	15.1	6.8	6 L costals; nuchal divided
27-Aug-09	17131	17132	10R11L	Nest	125	26.7	30.8	27.3	15.4	7.8	5 L costals
27-Aug-09	17133		10R11L	Nest	125	26.9	31	26.3	16	7.1	
27-Aug-09	17135		10R11L	Nest	125	27.9	32	27.6	15.9	8.3	
27-Aug-09	17136	17137	10R11L	Nest	125	25.9	30	25.6	14.3	6.4	
27-Aug-09	17138		10R11L	Nest	125	26.9	31.6	27.6	16.5	8.2	
27-Aug-09	17139	17140	10R11L	Nest	125	26.6	29.8	27.1	15.6	7.1	Anom V4,5 (very large V4, very small V5)
31-Aug-09	17295	17296	10R11L	Nest	128	27.6	32.3	27.7	16.2	8.2	
31-Aug-09	17297		10R11L	Nest	128	26.8	32.8	27.4	16.3	8.1	
31-Aug-09	17299		10R11L	Nest	128	27.9	32	27.7	15.6	7.6	Anom V5- small extra scute
31-Aug-09	17300	17301	10R11L	Nest	128	28.9	33.1	28.9	16.6	8.5	Anom V5- 2 extra scutes; 13 R marginals
31-Aug-09	17302		10R11L	Nest	128	27.8	32.9	28.3	16.6	8.5	
31-Aug-09	17303	17304	10R11L	Nest	128	27.2	32.3	27.6	16.5	8	
31-Aug-09	17305	17306	10R11L	Nest	128	29	32.6	28.2	16.4	8.1	
31-Aug-09	17307		10R11L	Nest	128	28.7	33.4	28.7	15.9	8.6	Anom V5- 2 extra scutes.
31-Aug-09	17308	17309	10R11L	Nest	128	28.9	33.2	28.6	16.1	8.5	
2-Sep-09	17362	17363	10R11L	Nest	128	27.6	32	28.4	14.6	7.4	Very soft, flexible plastron.
2-Sep-09	17364		10R11L	Nest	128	29	33	29.2	16.2	8.2	
10-Sep-09	17498		10R11L	Nest	128	27.3	32.9	28.1	16.3	7.9	Anom V5

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
10-Sep-09	17499	17500	10R11L	Nest	128	27.9	33.4	28.2	17	8.4	Anom V5
25-Aug-09	17109		10R11L	Nest	129	25.5	30.9	27.5	15.9	7	anom 12R marginal
17-Sep-09	17709	17710	10R11L	Nest	129	28.9	31.7	28.8	15.9	7.7	
17-Sep-09	17711		10R11L	Nest	129	27.2	30.5	29.4	16.2	7.8	Anom V5
17-Sep-09	17712	17713	10R10L 11L	Nest	129	27.1	29.6	27.3	15.6	6.9	22 Marginals; Anom V1,5
17-Sep-09	17714	17715	10R11L	Nest	129	28.4	30.9	26.5	15.7	7	13 R marginals; 5 R costals
17-Sep-09	17716		10R11L	Nest	129	27.5	30.6	28	15.4	7	
17-Sep-09	17718		10R11L	Nest	129	28.3	31.1	28.7	15.8	7.4	
17-Sep-09	17719	17720	10R11L	Nest	129	28	32.1	28.1	15.6	7.5	Anom V5
17-Sep-09	17721		10R11L	Nest	129	28.5	32.1	29.3	16.1	7.9	
17-Sep-09	17722	17723	10R11L	Nest	129	29.1	31.8	27.8	16.5	7.5	
17-Sep-09	17724		10R11L	Nest	129	28.5	31.5	27.9	15.3	7.5	
17-Sep-09	17726		10R11L	Nest	129	26.7	29.9	26.9	14.8	6.1	
17-Sep-09	17727	17728	10R11L	Nest	129	28.9	32	28.7	16.5	7.7	
17-Sep-09	17729		10R11L	Nest	129	27.3	31.3	29	15.2	7.4	
17-Sep-09	17731		10R11L	Nest	129	29.2	31.4	27.9	15.3	7.1	
17-Sep-09	17732	17733	10R11L	Nest	129	28.1	30.8	28.2	16	7.5	10 costals
17-Sep-09	17734		10R11L	Nest	129	28.8	31.3	28.9	16	7.7	
28-Sep-09	60657	60658	10R11L	Nest	129	26.8	30.1	23.2	16.3	7.2	
6-Oct-09	60899	60900	10R11L	Nest	132	32.1	36	30.3	17.2	10	
6-Oct-09	60901		10R11L	Nest	132	31.8	35.8	30	17.4	10.4	Nuchal divided
6-Oct-09	60903		10R11L	Nest	132	31.7	35.1	30.7	17.7	10	
6-Oct-09	60904	60905	10R11L	Nest	132	31.5	35.6	30	17.1	9.9	
6-Oct-09	60906		10R11L	Nest	132	31.8	35.5	30.4	17.3	9.8	
6-Oct-09	60907	60908	10R11L	Nest	132	29.3	32.6	27.9	15.8	8	Anom V4,5
30-Mar-10	61416		10R12L	Nest	133	29.4	32.2	29	16.9	8.8	
30-Mar-10	61417	61418	10R12L	Nest	133	29.7	33.8	30.6	15.8	8.9	
30-Mar-10	61419		10R12L	Nest	133	29.4	32.8	28.9	15.8	8	
30-Mar-10	61421		10R12L	Nest	133	29.1	32.8	27.5	15.8	7.9	
30-Mar-10	61422		10R12L	Nest	133	29	33.3	27.6	16.4	8.4	
30-Mar-10	61424		10R12L	Nest	133	29.9	33.3	28.7	16.1	8.4	
30-Mar-10	61425	61426	10R12L	Nest	133	28.9	32.8	28	16	8	
30-Mar-10	61427		10R12L	Nest	133	29.8	33.2	28.5	16.1	8.2	
30-Mar-10	61429		10R12L	Nest	133	28.4	32.1	28.3	16.2	7.8	Anom V4-V5
30-Mar-10	61430	61431	10R12L	Nest	133	30.2	34	29.8	15.5	8.7	
30-Mar-10	61432		10R12L	Nest	133	29.6	32.3	27.4	15.6	7.5	
30-Mar-10	61433	61434	10R12L	Nest	133	29.2	32.7	28.5	15.7	8.3	
30-Mar-10	61437		10R12L	Nest	133	29	32.5	28.8	16.7	8.6	
30-Mar-10	61435		10R12L	Nest	133	28.7	32.6	29.4	16.3	8.5	
30-Mar-10	61438	61439	10R12L	Nest	133	28.5	31.8	26.3	15.1	6.8	Anom V4-V5 13 Marg on R
31-Aug-09	17277	17278	10R11L	Nest	135	27.2	33.4	27.6	17.4	8.5	
31-Aug-09	17279		10R11L	Nest	135	27.6	31.5	27.2	16	8.1	
31-Aug-09	17281		10R11L	Nest	135	25.8	30.8	26.8	15.6	7	
31-Aug-09	17282	17283	10R11L	Nest	135	27.7	33	28	17.1	9	Anom V5

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
31-Aug-09	17284		10R11L	Nest	135	30	33.1	28.3	16.3	8.9	
31-Aug-09	17285	17286	10R11L	Nest	135	27.5	32.5	28.1	17.6	8.4	Anom V4, 3 L costals
31-Aug-09	17287		10R11L	Nest	135	26.9	31.6	27.6	16.9	8.2	
31-Aug-09	17289		10R11L	Nest	135	27.2	31.8	26	15.8	7.6	5 R costals
31-Aug-09	17290	17291	10R11L	Nest	135	27.7	31.9	28	16	8.6	
31-Aug-09	17292		10R11L	Nest	135	27.4	33.1	27.9	16.5	8.7	
31-Aug-09	17294		10R11L	Nest	135	27.9	32.9	28.1	16.9	8.5	
8-Sep-09	17434		10R11L	Nest	137	28.6	33.6	29.9	17.7	10.4	
8-Sep-09	17436		10R11L	Nest	137	29.5	35.2	31.2	16.9	10.3	
8-Sep-09	17437	17438	10R11L	Nest	137	28.5	33.6	29.7	17.4	9.9	
8-Sep-09	17439		10R11L	Nest	137	29.2	33.8	29.4	16.9	9.3	
8-Sep-09	17441		10R11L	Nest	137	28.5	32.3	29.9	16.1	9.7	
8-Sep-09	17442	17443	10R11L	Nest	137	29.9	35.3	31	16.5	10.6	
8-Sep-09	17444		10R11L	Nest	137	28.2	34.5	30.5	17.3	10.8	
8-Sep-09	17445	17446	10R11L	Nest	137	28	32.9	30.3	17.3	10.1	
8-Sep-09	17447	17448	10R11L	Nest	137	28.9	34.3	30	17	10.1	
8-Sep-09	17449		10R11L	Nest	137	28.4	33.7	30.1	17.1	9.6	
8-Sep-09	17450	17451	10R11L	Nest	137	27.3	32.8	29.7	15.3	9.1	
11-Sep-09	17509	17510	10R11L	Nest	137	27.5	32	29.5	16.5	9.9	
21-Sep-09	17739		10R11L	Nest	137	30.1	35.2	31.2	16.5	9.7	
21-Sep-09	17740	17741	10R11L	Nest	137	29.2	33.5	30.9	17.2	9.9	
28-Aug-09	17161		10R11L	Nest	138	28.2	31.2	28.4	16.6	7.7	
28-Aug-09	17162	17163	10R11L	Nest	138	26.3	31	28.1	17.1	7.6	
28-Aug-09	17164		10R11L	Nest	138	25.1	30.2	27.7	15.5	6.8	7 L costals; Anom V4
28-Aug-09	17165	17166	10R11L	Nest	138	27.6	31.6	28.4	16.5	7.7	
28-Aug-09	17167	17168	10R11L	Nest	138	26.4	30.9	28.1	16.5	7.4	
28-Aug-09	17169		10R11L	Nest	138	28.4	32.2	29.3	16.6	7.9	
28-Aug-09	17170	17171	10R11L	Nest	138	26.8	30.9	27.9	16.3	7.3	
28-Aug-09	17172		10R11L	Nest	138	26.5	30.3	27.5	16.5	7.5	
28-Aug-09	17174		10R11L	Nest	138	25.9	29.7	25.9	15.5	6.9	nuchal divided
28-Sep-09	60662	60663	10R11L	Nest	139	31	34.3	30.9	16.8	8.9	
28-Sep-09	60664		10R11L	Nest	139	30.1	32.6	29.9	16.1	8.4	Anom L 4th Costal, R 1st Costal
28-Sep-09	60665	60666	10R11L	Nest	139	28.5	32	29.2	15.5	7.5	
28-Sep-09	60667	60668	10R11L	Nest	139	28.6	31.6	29.9	15.9	8.1	
28-Sep-09	60669		10R11L	Nest	139	30	32.6	29.3	16.4	7.9	
28-Sep-09	60670	60671	10R11L	Nest	139	29.5	33.2	30.2	16.8	8.8	Anom V5; 2 small extra scutes beside V1
28-Sep-09	60672		10R11L	Nest	139	27.4	29.7	27.8	15.5	6.8	
29-Sep-09	60749	60750	10R11L	Nest	139	26.6	29.7	26.9	15.3	6.2	
24-Mar-10	61188	61189	10R12L	Nest	140	22.5	26.9	24	14	5.5	
24-Mar-10	61190		10R12L	Nest	140	28.4	32.5	29.1	15.8	8.5	Anom V5
24-Mar-10	61191	61192	10R12L	Nest	140	30.1	33.9	29.6	17.3	9.5	
24-Mar-10	61193		10R12L	Nest	140	27.8	31.9	27.6	16	8	
24-Mar-10	61194	61195	10R12L	Nest	140	24.8	28.7	25.7	13.6	5.5	
31-Mar-10	61769	61770	10R12L	Nest	140	28	29.9	27.5	15.3	6.9	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
24-Mar-10	61169		10R12L	Nest	143	28.4	31.5	27.7	15.6	7.4	
24-Mar-10	61170	61171	10R12L	Nest	143	26	29	28.6	14.8	7	
24-Mar-10	61172		10R12L	Nest	143	26.4	29.6	26.4	14.9	6.1	
24-Mar-10	61174		10R12L	Nest	143	26.8	28.8	25.7	14.5	6.5	
24-Mar-10	61175	61176	10R12L	Nest	143	24.1	27.5	25.6	14.1	5.9	Anom V5
24-Mar-10	61177		10R12L	Nest	143	23.3	27	24.8	14.3	5.3	
24-Mar-10	61178	61179	10R12L	Nest	143	27.3	30.8	28.3	14.8	6.8	
30-Mar-10	61608		10R12L	Nest	143	27.2	30.3	27	14.8	6.9	
30-Mar-10	61609	61610	10R11L	Nest	143	27.9	28.9	28.1	15.2	7.1	22 marg
30-Mar-10	61611		10R11L	Nest	143	26.4	29.3	25.4	14.3	6	
30-Mar-10	61612	61613	10R11L	Nest	143	26.7	31.2	28.8	15.3	7.3	
30-Mar-10	61614		10R11L	Nest	143	26.5	28.3	25.3	15.1	6.2	
30-Mar-10	61454	61455	10R12L	Nest	144	28.9	31.7	29.1	15.5	7.7	
30-Mar-10	61456		10R12L	Nest	144	27.4	31	27.3	14.7	6.7	
30-Mar-10	61457	61458	10R12L	Nest	144	31.2	32.4	29.7	17.1	9	
30-Mar-10	61459	61460	10R12L	Nest	144	28	30.8	27.8	16.1	7.3	
30-Mar-10	61461		10R12L	Nest	144	27.4	30.5	27.5	15.9	7	
30-Mar-10	61462	61463	10R12L	Nest	144	26.1	29.9	27.8	13.8	6.5	
30-Mar-10	61464		10R12L	Nest	144	28.4	30.6	27.8	15.7	7.1	
30-Mar-10	61465	61466	10R12L	Nest	144	29.3	31.2	28	15.5	7.7	
30-Mar-10	61467	61468	10R12L	Nest	144	27.2	29.1	26.6	14.8	5.9	
30-Mar-10	61469		10R12L	Nest	144	29.7	31.9	29.3	15	7.9	
30-Mar-10	61470	61471	10R12L	Nest	144	30.8	33.2	29.6	16.5	8.5	
8-Sep-09	17452		10R11L	Nest	145	24.5	27.1	23.5	14.7	5.2	
8-Sep-09	17454		10R11L	Nest	145	25.8	28.8	24.7	15.7	6.4	
8-Sep-09	17455	17456	10R11L	Nest	145	24.8	28.2	24.2	15.4	6	
8-Sep-09	17457		10R11L	Nest	145	24.8	28.5	26.5	15.8	6.5	
8-Sep-09	17458	17459	10R11L	Nest	145	25.7	28.8	25.7	15.9	6.8	
8-Sep-09	17460	17461	10L	Nest	145	27.3	30.5	26.2	16.4	7.7	
8-Sep-09	17462		10L	Nest	145	28.4	30.8	26.1	16.2	7.7	
8-Sep-09	17463	17464	10L	Nest	145	27.4	29.6	25.4	16.3	6.7	
8-Sep-09	17465		10L	Nest	145	27.8	30.8	26.5	16.5	7.8	
8-Sep-09	17467		10L	Nest	145	26.8	30.3	25.7	16.4	7.5	
8-Sep-09	17468	17469	10L	Nest	145	27.9	30.8	27.5	16.3	8.2	
8-Sep-09	17470		10L	Nest	145	27.8	30.7	25.8	15.9	7.4	
8-Sep-09	17471	17472	10L	Nest	145	27	29.5	26.3	16.5	7.6	nuchal divided
8-Sep-09	17473	17474	10L	Nest	145	27.4	30	25.2	17.3	7.4	
8-Sep-09	17475		10L	Nest	145	28.5	31.3	26.8	16.3	7.8	
12-Oct-09	60912	60913	10R11L	Nest	146	27	30.1	27	15.8	6.8	
12-Oct-09	60914 & 60916	60915	10R11L	Nest	146	28.4	31.9	28.9	15.7	7.5	2 tags injected accidently
12-Oct-09	60917	60918	10R11L	Nest	146	29.5	32.9	30	14.3	7.7	
12-Oct-09	60919		10R11L	Nest	146	29.3	33	28.5	16.4	7.6	
12-Oct-09	60920	60921	10R11L	Nest	146	28.1	30.9	28.8	16.2	7.9	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
12-Oct-09	60922	60923	10R11L	Nest	146	28.4	32.1	28.3	15.3	7.5	
12-Oct-09	60924		10R11L	Nest	146	26.8	29.2	26.6	15.1	6.6	
12-Oct-09	60925	60926	10R11L	Nest	146	26	28.8	25.5	14.8	5.8	Anom V5
12-Oct-09	60927		10R11L	Nest	146	27.8	31.7	28.5	16.4	7.5	
5-Oct-09	60841	60842	10R11L	Nest	147	27	30.1	24.8	14.7	6.9	Anom V2,3,4,5; 6 L costals; 11 R marginals
5-Oct-09	60843		10R11L	Nest	147	24.9	30.2	26.8	14.4	6.3	
5-Oct-09	60845		10R11L	Nest	147	20.2	25.2	19.7	12.7	3.4	11 R marginals; Deformed plastron
5-Oct-09	60846	60847	10R11L	Nest	147	27	30.8	26.5	16.1	7.1	
5-Oct-09	60853		10R11L	Nest	147	26	29.8	27.3	15.1	6.2	
5-Oct-09	60885		11R10L	Nest	147	27.2	31.4	28.3	16.1	7.8	
5-Oct-09	60886	60887	11R10L	Nest	147	28	30.2	27.3	15.4	7.3	
5-Oct-09	60888		11R10L	Nest	147	27.6	32.3	29.4	16.2	8.1	Anom V5
5-Oct-09	60890		11R10L	Nest	147	27.8	31.4	28.1	16	7.6	
5-Oct-09	60891	60892	11R10L	Nest	147	27	31.2	27.3	15.8	7.4	
5-Oct-09	60893		11R10L	Nest	147	28.6	32.3	28.7	15.3	7.9	
5-Oct-09	60895		11R10L	Nest	147	28.1	31.4	28.6	15.1	7.5	Anom V4,5
5-Oct-09	60896	60897	11R10L	Nest	147	26.6	31	27.7	15.4	7.2	
5-Oct-09	60898		11R10L	Nest	147	26.7	29.7	26.8	14.8	6.6	Anom V2,3,4,5; 5 R costals; 13 R marginals
28-Sep-09	60712	60713	10R11L	Nest	148	26	30.3	28	15	7	
28-Sep-09	60714		10R11L	Nest	148	25	30.7	28.3	15	6.9	
28-Sep-09	60715	60716	10R11L	Nest	148	26.4	31	26.5	15.1	6.7	
28-Sep-09	60717		10R11L	Nest	148	25.9	30.3	27.4	15.3	6.7	
28-Sep-09	60719		10R11L	Nest	148	26	30.5	27.3	14.6	6.4	
28-Sep-09	60720	60721	10R11L	Nest	148	26.9	30.7	26.9	15.2	6.9	Anom L 4th Costal
28-Sep-09	60722		10R11L	Nest	148	28.4	31.3	28.4	15.5	7.2	
29-Sep-09	60759	60760	10R11L	Nest	148	26.1	30.5	27.7	15.1	6.4	
29-Sep-09	60761		10R11L	Nest	148	26	30	27.4	14.9	6.1	
29-Sep-09	60762	60763	10R11L	Nest	148	25.9	30.7	27.5	14.9	6.4	
5-Oct-09	60832		10R11L	Nest	148	26.5	29.5	26.4	15.1	6.4	
5-Oct-09	60833	60834	10R11L	Nest	148	26.5	29.5	26.6	14.4	5.5	
5-Oct-09	60835		10R11L	Nest	148	26	29.8	27	15.1	6	
5-Oct-09	60836	60837	10R11L	Nest	148	24.5	27.4	24.7	13.3	5	Anom V5
5-Oct-09	60838	60839	10R11L	Nest	148	27.5	30	27.5	15	6.5	
5-Oct-09	60840		10R11L	Nest	148	23.7	27.4	23.9	14.4	5.3	
30-Mar-10	61663		10R12L	Nest	149	27.3	31.7	28.7	15.8	7.8	Anom V5
30-Mar-10	61664	61665	10R12L	Nest	149	26.5	30.2	27.5	15.5	7.2	
30-Mar-10	61666		10R12L	Nest	149	26.8	30.3	28.2	14.9	7.2	
30-Mar-10	61668		10R12L	Nest	149	26.9	31	28.6	14.6	7.5	anom V5
30-Mar-10	61669	61670	10R12L	Nest	149	27.5	31.6	26.9	14.9	6.9	Anom V5
30-Mar-10	61671		10R12L	Nest	149	27.6	31.6	28.7	15.1	7.7	Anom V5
30-Mar-10	61672	61673	10R12L	Nest	149	27.4	32.1	28.5	15.3	7.7	Anom V5
30-Mar-10	61674		10R12L	Nest	149	27.7	31.3	27.9	15.4	7.6	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
30-Mar-10	61676		10R12L	Nest	149	27.2	31.4	28.9	15.5	7.5	Anom V5
30-Mar-10	61677	61678	10R12L	Nest	149	28.4	32	28.8	16.1	8.1	Anom V5
30-Mar-10	61679		10R12L	Nest	149	28.3	31.7	28.8	14.6	7.5	
30-Mar-10	61680	61681	10R12L	Nest	149	27.4	31	27.3	15.4	7.2	Anom V5
5-Oct-09	60793		10R10L	Nest	150	27.1	32.3	28.6	15.7	7.3	Anom V5
5-Oct-09	60795		10R10L	Nest	150	29.4	32	27.8	16.2	7.6	Anom V5
5-Oct-09	60796	60797	10R10L	Nest	150	26.8	32	27.8	15	7.2	Anom V5; 13 R marginals
5-Oct-09	60798		10R10L	Nest	150	30.1	33.9	29.7	16.7	9.1	Anom V5
5-Oct-09	60799	60800	10R10L	Nest	150	25.5	30.4	26.5	14.8	6	
5-Oct-09	60801	60802	10R10L	Nest	150	28.4	33.9	30.3	17.2	8.8	
5-Oct-09	60803		10R10L	Nest	150	26.6	31.1	27	15.2	6.9	
5-Oct-09	60804	60805	10R10L	Nest	150	30.2	34.3	30.8	16.3	9.5	
5-Oct-09	60806		10R10L	Nest	150	28.8	31.8	28.2	16.3	7.3	
5-Oct-09	60808		10R10L	Nest	150	26.9	31	27.8	15.6	7	
31-Mar-10	61913	61914	10R12L	Nest	153	27.9	30.9	27.6	15.6	7.6	
31-Mar-10	61915		10R12L	Nest	153	25.7	28.4	24.7	14.9	6	
31-Mar-10	61917		10R12L	Nest	153	26	29.2	24.8	16.6	6.6	
31-Mar-10	61918	61919	10R12L	Nest	153	27.9	31.5	27.3	15.8	7.7	
31-Mar-10	61920		10R12L	Nest	153	19.4	23.8	19.9	12.2	3.3	plastron damage
31-Mar-10	61921	61922	10R12L	Nest	153	26.8	29.2	27.5	15.9	6.8	
27-Oct-09	61030		10R11L	Nest	154	28.9	31	27.8	15.7	7.6	
27-Oct-09	61031	61032	10R11L	Nest	154	28.9	32	28.9	16.2	7.9	
27-Oct-09	61033	61034	10R11L	Nest	154	28.9	32.5	28.8	16.8	8.4	
30-Mar-10	61735	61736	10R12L	Nest	154	29.2	30	27.5	16.3	7.7	Anom V5, 13 R Marginals
30-Mar-10	61737	61738	10R12L	Nest	154	29.4	32.4	28.2	16	8.1	anom V5
31-Mar-10	61739		10R12L	Nest	154	25.2	27.8	24.8	13.9	5.1	Anom R Costals
29-Oct-09	61107	61108	10R11L	Nest	155	26.7	29.8	26.8	14.8	6.2	
29-Oct-09	61110		10R11L	Nest	155	29.5	33.4	29.9	16.4	8.6	Anom V5
29-Oct-09	61111		10R11L	Nest	155	26.6	29.9	25.9	16	6.4	
29-Oct-09	61112	61113	10R11L	Nest	155	29	32.7	29.1	16.9	8.2	
29-Oct-09	61114		10R11L	Nest	155	28.9	32.6	28.9	16.2	8.1	Anom V4
29-Oct-09	61115	61116	10R11L	Nest	155	29.5	33.5	28.9	17.9	9.2	5 L costals
30-Oct-09	61117	61118	10R11L	Nest	155	29.7	34.3	29.4	17.4	9.2	Anom L 4th costal
30-Oct-09	61119		10R11L	Nest	155	28.2	33	28.7	16.8	8.5	Anom V4; Anom L 4th costal
30-Mar-10	61536	61537	10R12L	Nest	155	26	30.5	27.9	15.3	7.7	
30-Mar-10	61538		10R12L	Nest	155	28.9	33.5	29.8	16.6	9.1	
30-Mar-10	61540		10R12L	Nest	155	28	32.2	29.8	16.4	8.9	
30-Mar-10	61726		10R12L	Nest	156	27.5	31.5	28.3	15.6	7.7	
30-Mar-10	61727	61728	10R12L	Nest	156	28.4	32.2	29.4	15.6	8	
30-Mar-10	61729		10R12L	Nest	156	27.5	31.3	27.9	15.5	7.6	
19-Oct-09	60999	61000	10R11L	Nest	157	26.3	29.2	26.9	15.3	6.6	
19-Oct-09	61001	61002	10R11L	Nest	157	25.4	28.2	26.2	15.3	6.3	Anom V5
19-Oct-09	61003		10R11L	Nest	157	26.9	30.4	28.2	16.7	7.2	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
19-Oct-09	61004	61005	9R9L	Nest	157	25.5	22.7	27.4	14.5	7.1	Deformed plastron, carapace; No tail; All vertical scutes anomolous, 9 R marginals
19-Oct-09	61006		10R11L	Nest	157	26.6	30.1	28	16.2	7.2	
19-Oct-09	61007	61008	10R8L	Nest	157	26.1	20.8	25.9	14.2	6.2	Deformed plastron, carapace; No tail; All vertical scutes anomolous, 10 L marginals, 11 R marginals
20-Oct-09	61009		10R11L	Nest	157	27.4	30.8	28	16	6.9	Anom V4,5
22-Oct-09	61028	61029	10R11L	Nest	157	27.6	31.3	28.9	16.1	7.7	
28-Sep-09	60659	60660	10R11L	Nest	158	27.1	30.8	26.3	15.9	7.1	
28-Sep-09	60661		10R11L	Nest	158	27.3	31.5	29.5	17.2	8.4	
13-Oct-09	60956		10R11L	Nest	159	29	32.7	29.2	16.6	8.6	
13-Oct-09	60957	60958	10R11L	Nest	159	29	33.3	29.2	16.9	8.2	Anom V5
13-Oct-09	60959	60960	10R11L	Nest	159	29.4	32.7	27.5	16.5	8.3	
13-Oct-09	60961		10R11L	Nest	159	30.1	32.8	28.8	15.9	8.3	
13-Oct-09	60962	60963	10R11L	Nest	159	28.7	31.9	27.4	16.5	7.9	
13-Oct-09	60964		10R11L	Nest	159	29.7	32.9	29	17.2	9.1	13 L marginals
13-Oct-09	60965	60966	10R11L	Nest	159	29.8	33	27.7	16.2	8.1	
13-Oct-09	60967		10R11L	Nest	159	29.3	32.3	28.2	15.5	7.8	
13-Oct-09	60970	60971	10R11L	Nest	159	29.3	33.4	29.2	16.5	8.6	Anom V5
13-Oct-09	60972		10R11L	Nest	159	29.1	33.4	29.3	16.7	8.6	
5-Oct-09	60809	60810	10R11L	Nest	160	25.7	28.7	25.6	15.6	6.4	
5-Oct-09	60811		10R11L	Nest	160	24.8	28.4	26.5	14.5	5.9	
5-Oct-09	60812	60813	10R11L	Nest	160	25.9	28.8	25.1	15	5.5	Anom V5
5-Oct-09	60814		10R12L	Nest	160	26.1	30	27.7	15.6	6.9	
5-Oct-09	60816		10R12L	Nest	160	26.8	32	28.9	17	7.9	
5-Oct-09	60817	60818	10R12L	Nest	160	27	30.7	27	16	6.8	
5-Oct-09	60819		10R12L	Nest	160	24.7	29.6	27.1	15.5	6.4	
5-Oct-09	60820	60821	10R12L	Nest	160	27.4	31.5	28.5	15.4	7.2	5 costals L & R
5-Oct-09	60822 & 60824		10R12L	Nest	160	24.9	29.8	26.1	15.2	6.2	2 wire tags inserted accidently
5-Oct-09	60825	60826	10R12L	Nest	160	25.4	30.8	28.1	15.5	7.1	
5-Oct-09	60827		10R12L	Nest	160	25.4	30.9	28.4	16.1	7.4	
5-Oct-09	60828	60829	10R12L	Nest	160	26.2	30.9	28.1	15.6	6.9	
5-Oct-09	60830	60831	10R12L	Nest	160	27.2	30.4	27.6	16	6.9	Anom V4,5
14-Sep-09	17578	17579	1R2R	Nest	161	27.4	32.8	28.5	15.8	7.9	
14-Sep-09	17580		1R2R	Nest	161	28.7	32.8	29	16.4	8.4	
14-Sep-09	17581	17582	1R2R	Nest	161	29.8	33.6	29.6	16.5	8.4	
14-Sep-09	17583		1R2R	Nest	161	29.1	33.1	29.9	16.4	8.6	
14-Sep-09	17585		1R2R	Nest	161	28.9	33.6	29.6	16.7	8.7	
14-Sep-09	17586	17587	1R2R	Nest	161	28	31.5	29.3	16.2	8.2	
14-Sep-09	17588		1R2R	Nest	161	27.5	32.4	27.7	15.9	7.6	
14-Sep-09	17590		1R2R	Nest	161	28.6	32.9	29.3	16.8	8.1	Anom V5

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
14-Sep-09	17591	17592	1R2R	Nest	161	28.6	32.6	28.8	17	8.4	Anom V5
14-Sep-09	17593		1R2R	Nest	161	27.6	31.3	28.3	15.3	7.6	Anom V1
15-Sep-09	17604	17605	10R11L	Nest	161	28.6	32.9	28.6	16.2	8.6	
22-Mar-10	61153		10R12L	Nest	162	28.2	32	27.6	15.6	7.4	
22-Mar-10	61154	61155	10R12L	Nest	162	24.8	28.2	25.5	13.6	5.4	
30-Mar-10	61398		10R12L	Nest	162	25.6	29.7	28.2	16	7.3	
30-Mar-10	61400		10R12L	Nest	162	29	32.8	27.9	16	8.2	
30-Mar-10	61401		10R12L	Nest	162	27.9	31.8	28.1	15.9	7.7	
30-Mar-10	61403		10R12L	Nest	162	27.3	31	27.7	15.6	7.2	Anom V5
30-Mar-10	61404	61405	10R12L	Nest	162	25.3	29.5	25.2	14.5	5.8	
30-Mar-10	61406		10R12L	Nest	162	27.9	31.8	29.3	15.8	8	
30-Mar-10	61408		10R12L	Nest	162	24.4	28.2	25.4	14.1	5.3	
28-Sep-09	60674		10R11L	Nest	163	28.3	33.3	29.2	16.1	8.5	
28-Sep-09	60675	60676	10L12L	Nest	163	30	35	30.4	17.1	9.3	
28-Sep-09	60677		10L12L	Nest	163	28.4	33.5	29.7	17.2	8.9	
28-Sep-09	60678	60679	10L12L	Nest	163	29.3	34	30.3	16.7	9.3	4 vertebral scutes
28-Sep-09	60680	60681	10L12L	Nest	163	29.8	34.1	30.7	16.5	9.5	
28-Sep-09	60682		10L12L	Nest	163	29.2	33.1	29	16.5	8.6	
28-Sep-09	60683	60684	10L12L	Nest	163	29.3	34.2	30.6	16.4	9.3	Nuchal divided
28-Sep-09	60685		10L12L	Nest	163	26.6	31.5	27.5	16.4	7.4	
28-Sep-09	60686	60687	10L12L	Nest	163	28.8	33.2	29.9	17.2	8.8	
28-Sep-09	60688	60689	10L12L	Nest	163	28.6	33.2	28.9	16	8.4	
28-Sep-09	60690		10L12L	Nest	163	29.6	35.5	29.9	17.5	9.8	
12-Oct-09	60909	6010	10R11L	Nest	163	29.7	33.9	29.9	17	8.2	
12-Oct-09	60911		10R11L	Nest	163	28.8	33.4	29.6	17.4	8.8	
31-Mar-10	61938		10R12L	Nest	164	25.5	29.4	25.9	14.5	6.5	
31-Mar-10	61939		10R12L	Nest	164	28.7	32.7	27.6	15.4	7.7	Anom V4; extra costal L side
31-Mar-10	61941		10R12L	Nest	164	27.2	31.7	28	15.7	8.2	
31-Mar-10	61942	61943	10R12L	Nest	164	28.4	32.5	28.3	16.5	8.5	
31-Mar-10	61945		10R12L	Nest	164	28.7	33.4	28.8	16.7	9	
31-Mar-10	61946		10R12L	Nest	164	27.6	32	28.1	15.7	7.9	
31-Mar-10	61947		10R12L	Nest	164	27	31.8	26.9	15.6	7.5	
31-Mar-10	61949		10R12L	Nest	164	26	30	26.3	15.4	6.5	
31-Mar-10	61950	61951	10R12L	Nest	164	26.9	31.2	26.6	15.4	7.1	
27-Oct-09	61053		10R11L	Nest	165	27.3	31.7	28.3	15.5	7.6	Anom V2,3,4,5
27-Oct-09	61054	61055	10R11L	Nest	165	27.3	31.9	28.1	15.6	7.7	
27-Oct-09	61056		10R11L	Nest	165	26.2	30.8	25.9	16.1	7	Anom Right 4th Costal
27-Oct-09	61057	61058	10R11L	Nest	165	25.8	30.7	26.3	15.3	6.9	
27-Oct-09	61059		10R11L	Nest	165	26	31.1	28	15.3	7.7	
27-Oct-09	61061		10R11L	Nest	165	27.4	32.6	27.7	16	8.1	
27-Oct-09	61062	61063	10R11L	Nest	165	27.4	31.5	27.4	15.8	7.4	Anom V1; 5 L costals; 13 R marginals
27-Oct-09	61064		10R11L	Nest	165	25.4	31.2	26.6	15.7	7.3	
27-Oct-09	61065	61066	10R11L	Nest	165	26.4	31	28.6	16	8	Anom V5
27-Oct-09	61067		10R11L	Nest	165	27.8	32.4	28.7	16.1	8	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
27-Oct-09	61069		10R11L	Nest	165	26.3	31	27.3	15.6	7.2	Anom V5; 5 R costals
27-Oct-09	61070	61071	10R11L	Nest	165	25.8	31.4	26.4	15.5	7.2	Anom V3,4,5; 13 L marginals
27-Oct-09	61072		10R11L	Nest	165	26.2	30.3	27.4	16	7.4	
21-Sep-09	17747		10R11L	Nest	166	27.6	31	27.5	16.4	8.4	Anom V4,5
22-Sep-09	17768		10R11L	Nest	166	28.2	32.3	28.5	16.7	9	
22-Sep-09	17770		10R11L	Nest	166	27.6	31.8	29.1	16.5	8.5	
22-Sep-09	17771	17772	10R11L	Nest	166	27.9	33	28.9	16.7	9.2	
23-Sep-09	17793		10R11L	Nest	166	27.7	32	27.5	17	8.3	
23-Sep-09	17794	17795	10R11L	Nest	166	28.8	32.8	28.7	16.8	9	
1-Oct-09	60783	60784	10R11L	Nest	166	26.9	31.8	28.7	16.5	8.4	
1-Oct-09	60785		10R11L	Nest	166	26.9	31.4	28.2	16.2	7.8	
29-Oct-09	61096		10R11L	Nest	167	25.2	29.5	24.9	15.6	6.3	
29-Oct-09	61097	61098	10R11L	Nest	167	26.3	30.4	27.2	16	7.3	
29-Oct-09	61099	61100	10R11L	Nest	167	28.1	32.6	29.3	17.1	8.4	Anom R 4th costal
29-Oct-09	61101		10R11L	Nest	167	27.9	32	27.9	16.2	7.8	
29-Oct-09	61102	61103	10R11L	Nest	167	25.6	30.6	27.1	15.7	6.9	Anom V5
29-Oct-09	61104	61105	10R11L	Nest	167	24.9	28.9	25	14.4	5.7	
29-Oct-09	61106		10R11L	Nest	167	26.6	30.8	27.2	15.9	7.1	
31-Mar-10	61805		10R12L	Nest	167	27.6	31.1	27.2	15.5	7.3	
31-Mar-10	61774	61775	10R12L	Nest	168	27	31	28	15.6	7.5	
31-Mar-10	61776		10R12L	Nest	168	26.9	31.1	28.2	15.6	7.5	
31-Mar-10	61777	61778	10R12L	Nest	168	25.8	29.8	26.9	14.5	6.6	
31-Mar-10	61779		10R12L	Nest	168	27.6	31.4	28	15.9	7.9	
31-Mar-10	61781		10R12L	Nest	168	27.7	31.1	28.3	15.8	7.6	Anom V5
31-Mar-10	61782	61783	10R12L	Nest	168	25.6	29.5	26.9	14.6	6.4	
31-Mar-10	61784		10R12L	Nest	168	25.4	28.8	25	14.3	5.9	Anom V5
31-Mar-10	61785	61786	10R12L	Nest	168	27.2	31.2	27.8	15.6	7.6	
31-Mar-10	61787	61788	10R12L	Nest	168	24.4	27.7	24.6	14	5.1	
31-Mar-10	61789		10R12L	Nest	168	23.8	27.9	25.7	14.5	5.6	
31-Mar-10	61899		10R12L	Nest	169	28.8	32.3	29.5	16.6	8.7	
31-Mar-10	61901		10R12L	Nest	169	28.6	32	28.4	15.2	7.9	
31-Mar-10	61902		10R12L	Nest	169	24.4	27.2	25	14.4	5.7	
31-Mar-10	61905	61906	10R12L	Nest	169	28.6	32.5	29.1	16.5	8.7	
31-Mar-10	61907		10R12L	Nest	169	27.1	30.1	27.8	16	7.2	
31-Mar-10	61909		10R12L	Nest	169	29.3	32.8	30.4	16.7	8.9	Anom V3-V5
31-Mar-10	61910	61911	10R12L	Nest	169	28.2	31.4	28.3	16.4	8.2	
31-Mar-10	61912		10R12L	Nest	169	25.8	28.5	25.2	14.4	5.6	
24-Sep-09	17798		10R11L	Nest	170	23.1	25.5	22.2	14.5	5.2	
24-Sep-09	17799	17800	10R11L	Nest	170	24.3	28	24	15.4	6.2	
24-Sep-09			10R11L	Nest	170	22.2	25.5	20.8	10.6	4.2	Dead in nest
24-Sep-09	17801; 17802	17803	10R11L	Nest	170	25	28.5	24.5	15.8	6.8	2 tags injected accidently
24-Sep-09	17804	17805	10R11L	Nest	170	26.6	30.3	26.1	17	7.7	
24-Sep-09	17806		10R11L	Nest	170	23.9	26.2	23.8	14.2	5.4	
29-Sep-09	60753		10R11L	Nest	170	25.2	28.3	25.8	14.6	5.8	

Date	ID1	ID2	Notch ID	MOC	Nest #	PL	CL	WD	HT	MASS	COMMENTS
29-Sep-09	60754	60755	10R11L	Nest	170	23.1	27	24.5	14.3	5.3	
29-Sep-09	60756		10R11L	Nest	170	24.8	28.2	25.9	15.1	6.1	
29-Sep-09	60757	60758	10R11L	Nest	170	26.6	28.9	25.4	15.2	6.5	
27-Oct-09	61073	61074	10R11L	Nest	171	28.7	33.6	28.5	16.3	8.2	
27-Oct-09	61075		10R11L	Nest	171	28.8	32.5	29.1	15.6	7.8	
27-Oct-09	61077		10R11L	Nest	171	27.9	32.6	28.7	15.9	8	
27-Oct-09	61078	61079	10R11L	Nest	171	29.2	34.4	29.3	16.1	9	
27-Oct-09	61080		10R11L	Nest	171	28.3	33.8	29.6	15.7	8.3	
27-Oct-09	61081	61082	10R11L	Nest	171	29.1	33.1	28.5	15.7	7.9	
27-Oct-09	61083		10R11L	Nest	171	28.5	32.8	28.1	15.8	8	
27-Oct-09	61085		10R11L	Nest	171	28.7	33.3	29.5	15.7	8.5	
27-Oct-09	61086	61087	10R11L	Nest	171	29.4	33.1	28.7	16.3	8.8	Anom L 3rd costal; 26 marginals
27-Oct-09	61088		10R11L	Nest	171	28	31.8	28.1	16.3	8	
27-Oct-09	61089	61090	10R11L	Nest	171	28.1	33.1	27.8	15.8	8	
29-Oct-09	61091	61092	10R11L	Nest	171	27.9	31.6	28	16.1	7.6	Anom V5
20-Oct-09	61011		10R11L	Nest	172	27.6	31.7	28.9	15.5	7.2	Nuchal divided
30-Mar-10	61512		10R12L	Nest	173	26.7	31.2	28.8	15.9	7.7	
30-Mar-10	61514		10R12L	Nest	173	26.7	31.6	27.2	16.5	7.9	13 Marg on R
30-Mar-10	61515	61516	10R12L	Nest	173	25.8	29.4	26.9	15	6.4	
30-Mar-10	61517		10R12L	Nest	173	24.6	28.8	24.7	14.6	5.9	Anom V5 26 Marg
30-Mar-10	61519		10R12L	Nest	173	25.3	30.3	26.9	15.5	7.1	Anom V5
30-Mar-10	61520	61520	10R12L	Nest	173	27	31	28.6	15.8	7.9	
30-Mar-10	61522		10R12L	Nest	173	26.7	30	27.7	15.6	7.5	
30-Mar-10	61523	61524	10R12L	Nest	173	26.9	31	27.9	16	7.6	
30-Mar-10	61525	61526	10R12L	Nest	173	28.5	32.3	28.1	15.6	8	Anom V5
30-Mar-10	61527		10R12L	Nest	173	27.2	29.9	27.2	15.9	6.9	Anom V5
30-Mar-10	61528	61529	10R12L	Nest	173	27.3	31.8	28.3	15.6	8	Anom V5
30-Mar-10	61530		10R12L	Nest	173	25.1	28.6	24.9	14	5.9	Anom V2 V5
30-Mar-10	61532		10R12L	Nest	173	26.4	30.5	27.6	15.6	7.3	Anom V5 26 Marg
30-Mar-10	61533	61534	10R12L	Nest	173	26.9	31.3	28.3	14.7	7.6	
30-Mar-10	61535		10R12L	Nest	173	26.4	30	26.4	15.1	6.9	
27-Oct-09	61036	61037	10R11L	Nest	174	26.5	29.3	26.2	16.4	6.8	
27-Oct-09	61038		10R11L	Nest	174	25.2	27.8	24	14.3	5.3	
27-Oct-09	61040		10R11L	Nest	174	23.6	25.8	26.7	14.1	5	
31-Aug-09	17175	17176	10R11L	Nest	179	26.2	30.8	27.2	15.7	7.2	
3-Sep-09	17405		10R11L	Nest	180	25.4	31.4	27.5	16.5	8.1	
18-Sep-09	17737	17738	10R11L	Nest	182	24.3	26.7	23.2	14.9	5.5	
31-Mar-10	61979	61980	10R12L	Nest	no	23.1	24.9	22.9	14.8	4.9	Anom V5

Date	N/R	Notch ID	Monel Tag	PIT Tag ID	Sex	PL	CL	WD	HT	Mass	RP	Head Width	DOB	RC	MOC	Latitude / Longitude	Comments
30-Jul-09	N	9R	PI	4A0E35746F	J	93	107	91	49	205	15		2007	N	Hand	N 38 45.261 W 76 22.593	Ano V5
30-Jul-09	N	9R	PI	4A0E7E5033	J	82	98	80	41	141	12		2007	N	Hand	N 38 45.261 W 76 22.593	Ano V5; Ano C3 on left
30-Jul-09	N	9R	PI	4A0F130D16	J	75	87	67	36	103	11		2006	N	Hand	N 38 45.261 W 76 22.593	Ano V5
26-May-09	R	9R	PI 0052	4519393547	M	89	105	85	42	184	13	18.5	2006		Hand	N 38 45.080 W 76 22.490	
8-Jul-09	R		PI 0060	451F5F127F	F	197	218	168	96	1774	28	41.9		Y	Hand	N 38 45.405 W 76 22.719	
24-Jun-09	R		PI 0069	451E4F7039	F	196	228	178	97	1767	32	42.7		Y	Hand	N 38 45.220 W 76 22.419	
8-Jun-09	N		PI 0075	474F71025C	F	206	237	173	97	2055	28	40.8		N	Hand	N 38 45.894 W 76 23.149	
8-Jun-09	N		PI 0076	47537A3807	F	192	210	171	91	1568	28	37.6		N	Hand	N 38 45.677 W 76 22.816	
8-Jun-09	N		PI 0077	474D675308	J	70	78	65	35	80	10	16.9	2006	N	Hand	N 38 45.012 W 76 22.395	
26-Jun-09	R		PI 1009	4A0D074B56	F									N	Hand	N 38 45.050 W 76 22.220	Just laid eggs
19-Jun-09	N		PI 1056	4A0C140231	F	135	161	107	30	1467	11	41.6		N	Hand	N 38 46.112 W 76 22.367	Captured after laying nest
19-Jun-09	N		PI 1065	4A0C78294E	F	170	197	147	73	1547	25	42.3		N	Hand	N 38 46.112 W 76 22.367	Captured after laying nest
22-Jun-09	N		PI 1068	4A0D150241	F	192	219	170	92	1557	27	38.5		N	Hand	N 38 45.037 W 76 22.324	Captured after laying nest
15-Jul-09	R		PI 1076	4A0D05713E	F									N	Hand	N 38 45.261 W 76 22.593	Found in 1C
8-Jul-09	N		PI 1144	4A0C77483F	F	198	225	178	93	1607	29	38.9		N	Hand	N 38 45.293 W 76 22.890	Just laid eggs; Barnacles on shell
10-Jul-09	N		PI 1147	4A0F095325	F	197	226	174	98	1900	25			Y	Hand	N 38 45.778 W 76 22.840	Ano V4, V5
2-Jun-09	N			474F0B187A	F	213	239	183	96	2054	31	41		N	Hand	N 38 45.697 W 76 22.819	
22-Jul-09	R		PI 1112		F									N	Hand	N 38 45.088 W 76 22.399	Just laid nest
22-Jul-09	R		PI 1122	4A0C79374C	F									N	Hand	N 38 45.068 W 76 22.352	Missing left front foot

Date	Notch ID	PIT ID	Sex	PL	CL	Width	Height	Weight	RP	DOB	Comments
19-Apr-10	10R11R	6C00015533	J	70.8	81.4	67.0	33.9	91.0	10.7	2009	NAIB
19-Apr-10	10R12R	4B18330831	J	63.5	71.7	61.9	33.6	71.0	10.2	2009	NAIB
19-Apr-10	9R10R	4B1834365B	J	70.3	82.1	69.9	36.9	93.0	10.6	2009	NAIB
19-Apr-10	10R11R	6C00015609	F	103.7	119.7	95.6	47.8	280.0	15.7	2009	NAIB
19-Apr-10	10R11R	6C00015526	F	96.1	107.9	89.2	45.4	209.0	14.0	2009	NAIB
19-Apr-10	10R11R	6C00015515	J	80.9	90.9	79.9	41.2	129.0	12.4	2009	NAIB
19-Apr-10	10R12R	6C00015530	J	87.0	99.9	89.2	42.9	189.0	13.6	2009	ANO V5; NAIB
19-Apr-10	10R11R	6C00015537	J	60.3	68.2	54.7	29.2	58.0	8.4	2009	NAIB
19-Apr-10	10R11R	6C00015501	F	87.7	98.2	83.8	42.3	175.0	11.8	2009	NAIB
19-Apr-10	9R10R	6C00015575	J	68.4	81.0	65.9	34.6	99.0	10.3	2009	NAIB
19-Apr-10	10R12R	6C00015519	J	67.5	77.1	67.5	33.1	94.0	9.9	2009	NAIB
19-Apr-10	10R12R	6C00015524	J	67.2	70.0	65.9	33.6	86.0	9.6	2009	NAIB
19-Apr-10	9R10R	6C00015567	J	48.3	57.5	45.2	25.4	34.0	7.1	2009	NAIB
19-Apr-10	9R10R	6C00015520	J	41.1	49.7	45.0	26.2	34.0	6.5	2009	ANO PECTORAL &
19-Apr-10	10R11R	4B1F05656B	J	71.5	82.6	70.8	33.1	104.0	9.4	2009	NAIB
19-Apr-10	10R12R	6C00015568	J	86.0	94.6	76.0	40.0	153.0	13.7	2009	NAIB
19-Apr-10	10R12R	6C00015506	J	72.8	82.5	67.9	37.1	111.0	12.2	2009	NAIB
19-Apr-10	9R10R	6C00015546	J	66.2	78.5	66.2	33.8	88.0	9.5	2009	NAIB
19-Apr-10	10R11R	6C00015605	J	87.4	98.3	83.8	42.0	185.0	12.5	2009	NAIB
19-Apr-10	10R12R	4B1E624731	J	67.2	77.9	65.1	33.0	89.0	10.5	2009	ANO V5; NAIB
19-Apr-10	10R11R	6C00015531	F	106.2	118.7	99.3	49.1	284.0	15.0	2009	NAIB
19-Apr-10	9R10R	6C000155146	F	82.3	95.9	77.6	39.3	152.0	12.5	2009	2 PIT TAGS; NAIB
19-Apr-10	10R11R	6C00015606	F	97.9	110.1	92.0	45.0	234.0	12.7	2009	NAIB
19-Apr-10	9R10R	6C00015547	F	94.4	103.5	96.6	44.9	261.0	15.4	2009	NAIB
19-Apr-10	10R12R	6C00015565	J	69.5	83.0	68.7	33.4	92.0	11.3	2009	NAIB
19-Apr-10	10R12R	6C00015612	J	64.4	72.5	58.6	31.8	72.0	11.5	2009	ANO V5; NAIB
19-Apr-10	10R11R	6C00015611	J	35.8	40.4	32.6	19.3	12.0	6.0	2009	NAIB
19-Apr-10	10R12R	6C00015577	J	38.6	45.0	38.9	20.6	20.0	7.0	2009	NAIB
19-Apr-10	10R12R	6C00015539	J	37.6	43.6	38.9	21.7	19.0	5.7	2009	NAIB
19-Apr-10	10R11R	4B176B206B	J	69.1	81.3	63.8	33.8	92.0	10.1	2009	
19-Apr-10	3R	4B18153361	J	74.8	85.4	68.3	37.3	119.0	11.2	2009	
19-Apr-10	10L	4B1332724A	J	64.9	77.2	63.5	33.8	90.0	10.6	2009	
19-Apr-10	1L	4B176C4A1C	J	57.5	66.4	55.6	30.2	6.0	9.7	2009	ANO V1-5
19-Apr-10	12R	4B16137045	J	77.3	90.6	70.4	33.7	126.0	12.2	2009	
19-Apr-10	11L	4B132D4047	J	73.4	86.4	71.0	36.8	109.0	11.2	2009	
19-Apr-10	2L	4B13543E72	J	80.2	90.4	79.2	37.8	141.0	12.9	2009	
19-Apr-10	11R	4B16254E40	J	74.0	87.5	70.2	37.3	111.0	14.0	2009	
19-Apr-10	1R2R	4B1827240E	J	77.6	88.5	73.6	38.6	130.0	11.8	2009	
19-Apr-10	10R	4B181F4355	J	79.2	93.5	76.3	41.1	150.0	12.5	2009	
19-Apr-10	10L	4B175C671B	J	83.8	95.9	82.6	43.4	175.0	13.5	2009	
19-Apr-10	2R	4B162F4E70	J	70.9	83.7	71.3	34.7	113.0	11.9	2009	
19-Apr-10	3R	4B133D2B00	J	69.8	82.2	66.2	35.1	95.0	10.7	2009	
19-Apr-10	1L	4B17632E54	J	63.0	73.8	60.5	32.5	77.0	10.4	2009	
19-Apr-10	12L	4B16161027	F	95.2	110.1	89.6	46.8	209.0	17.5	2009	
19-Apr-10	10R11L	4B134D6957	J	57.8	68.8	53.9	29.7	53.0	10.5	2009	
19-Apr-10	10R	4B177F2B5A	J	61.4	72.8	58.4	32.2	69.0	8.6	2009	
19-Apr-10	9R	4B161A3651	F	93.8	109.2	86.9	46.9	227.0	13.7	2009	ANO V1-5
19-Apr-10	1L	4B17586139	F	91.5	104.9	86.1	43.9	109.0	14.5	2009	

Date	Notch ID	PIT ID	Sex	PL	CL	Width	Height	Weight	RP	DOB	Comments
19-Apr-10	10L	4B161A0E6A	J	62.5	74.4	60.2	31.9	74.0	10.9	2009	
19-Apr-10	11L	4B18000E17	J	79.6	80.0	32.8	32.6	93.0	12.2	2009	
19-Apr-10	1R2R	4B181C4D4E	J	85.7	98.9	80.8	43.2	176.0	14.1	2009	
19-Apr-10	11R	4B180D7B65	J	82.0	96.1	76.9	39.9	154.0	12.6	2009	
19-Apr-10	10R9L	4B161E5E61	J	84.4	94.8	79.0	40.1	164.0	14.8	2009	ANO V5
19-Apr-10	2L	4B13430074	J	83.2	97.3	81.1	38.3	153.0	12.3	2009	ANO V5
19-Apr-10	9R	4B177E6F2D	J	57.0	65.8	55.0	29.3	56.0	7.4	2009	
19-Apr-10	10R11L	4B13340225	J	59.8	71.8	55.3	30.4	64.0	10.3	2009	
19-Apr-10	12R	4B17534613	J	69.1	79.7	65.2	32.4	90.0	10.9	2009	
19-Apr-10	9L10L	4B164C1634	J	71.8	80.1	65.5	36.2	100.0	10.9	2009	
19-Apr-10	1R2R	4B161E6D0B	J	70.7	84.3	67.5	35.6	97.0	11.1	2009	
19-Apr-10	9R	4B175E5969	F	86.9	100.3	78.9	43.3	169.0	12.1	2009	
19-Apr-10	1R2R	4B161E654D	J	79.3	99.7	77.4	40.3	145.0	12.5	2009	
19-Apr-10	11R	4B1758276E	J	67.8	82.3	67.6	35.7	105.0	10.8	2009	
19-Apr-10	12R	4B13326234	J	70.8	82.1	66.9	36.7	108.0	9.5	2009	
19-Apr-10	9L10L	4B17613025	J	73.6	83.8	68.2	36.5	114.0	12.3	2009	
19-Apr-10	1R	4B17792C32	J	55.6	67.7	55.3	28.9	58.0	8.0	2009	
19-Apr-10	1R	4B18272E7C	J	64.0	75.3	60.7	31.6	77.0	8.6	2009	
19-Apr-10	2L	4B160E485D	J	78.4	88.8	72.8	37.7	136.0	13.3	2009	ANO V5
19-Apr-10	12R	4B177D3C4E	J	82.5	94.2	78.0	41.6	153.0	10.3	2009	
19-Apr-10	9L10L	4B17674D35	J	73.7	87.8	69.2	36.7	109.0	10.5	2009	
19-Apr-10	2R	4B182B2358	J	78.8	94.9	75.3	39.3	151.0	12.5	2009	ANO V5
19-Apr-10	1R	4B026A3F54	J	48.2	59.0	46.6	26.0	35.0	6.0	2009	
19-Apr-10	10R	4B17775561	J	52.2	60.9	49.8	29.5	47.0	7.4	2009	
19-Apr-10	1L	4B176D7A75	J	75.6	87.6	70.5	37.2	107.0	9.8	2009	
19-Apr-10	2R	4B161F6254	J	79.6	93.2	76.9	38.7	135.0	11.8	2009	
19-Apr-10	11L	4B134A335D	J	51.4	58.8	48.9	27.4	40.0	8.3	2009	
19-Apr-10	1R2R	4B18236E09	J	54.3	62.4	49.5	27.6	43.0	8.0	2009	
19-Apr-10	10R11L	4B16296B21	J	52.2	62.6	50.1	27.2	45.0	7.9	2009	
19-Apr-10	3R	4B182B3D4E	J	50.4	59.4	51.3	27.7	44.0	7.7	2009	
19-Apr-10	1R2R	4B17625721	F	74.2	88.1	71.5	37.3	120.0	12.1	2009	
19-Apr-10	11R	4B176C4F25	F	80.7	91.0	76.9	41.2	149.0	12.5	2009	ANO V4-5
19-Apr-10	9R10R	4B13441D0A	F	90.8	105.5	86.7	44.4	199.0	13.5	2009	NAIB
19-Apr-10	9R10R	4B13404B2F	F	92.4	111.5	90.5	42.9	219.0	13.8	2009	NAIB
19-Apr-10	1R	4B17591129	J	66.4	80.8	64.3	32.5	85.0	8.8	2009	
19-Apr-10	11L	4B17694913	J	65.1	78.2	63.9	34.1	86.0	9.2	2009	
19-Apr-10	9R	4B17584637	J	61.6	71.5	58.9	31.1	71.0	7.9	2009	
19-Apr-10	9L	4B17694913	J	56.2	65.4	50.8	28.4	47.0	8.7	2009	
19-Apr-10	10L	4B1772403E	J	74.0	85.9	69.4	35.8	108.0	11.1	2009	
19-Apr-10	2L	4B164C0250	J	63.5	73.2	60.3	31.6	74.0	9.6	2009	ANO V5
19-Apr-10	9L10L	4B020C3121	J	71.8	81.9	63.4	35.2	107.0	11.1	2009	
19-Apr-10	11L	4B132C5948	J	66.7	77.5	65.3	32.4	88.0	9.9	2009	
19-Apr-10	10R11L	6C00015616	J	62.1	74.6	60.8	31.1	70.0	8.5	2009	
19-Apr-10	10R	4B18115234	J	63.9	74.0	60.0	31.8	74.0	10.0	2009	
19-Apr-10	12L	4B1618055C	J	59.0	69.1	55.2	30.2	59.0	9.3	2009	
19-Apr-10	10L	4B16180D1A	J	55.9	63.7	52.1	28.4	47.0	9.1	2009	
19-Apr-10	1R2R	4B17720B16	J	73.3	88.3	71.5	38.2	120.0	11.5	2009	
19-Apr-10	11R	4B177B2B56	J	72.7	84.9	66.8	35.4	102.0	9.9	2009	

Date	Notch ID	PIT ID	Sex	PL	CL	Width	Height	Weight	RP	DOB	Comments
19-Apr-10	12L	4N161B252C	J	72.8	83.0	68.1	35.4	101.0	10.4	2009	
19-Apr-10	10L	4B16253E44	J	66.2	78.1	63.5	32.5	76.0	10.5	2009	
19-Apr-10	10R	4BD23F4414	F	87.4	105.8	87.5	43.8	213.0	14.9	2009	
19-Apr-10	10R11L	4A77051A64	F	97.5	112.9	87.3	44.9	225.0	14.8	2009	
19-Apr-10	10R	4A71177575	J	63.1	75.7	61.8	33.9	83.0	9.1	2009	
19-Apr-10	3R	4B043E516C	J	59.2	66.7	54.2	28.1	52.0	9.2	2009	
19-Apr-10	9R	4B05152B4D	J	60.8	70.2	54.7	30.4	64.0	7.0	2009	
19-Apr-10	10R	4B1613074C	F	103.9	122.3	95.8	48.4	255.0	15.9	2009	
19-Apr-10	10R11L	4B163E7633	F	88.5	105.7	81.9	43.5	175.0	12.9	2009	
19-Apr-10	1L	4A722E2905	M	84.4	104.8	86.1	44.4	192.0	13.8	2009	ANO V5
19-Apr-10	2R	4A722B4121	F	102.5	115.3	98.0	58.3	286.0	16.1	2009	
19-Apr-10	9L10L	4A71084362	J	72.1	80.3	66.8	35.3	103.0	12.5	2009	
19-Apr-10	12R	4B165E5B39	J	76.5	81.8	71.5	37.8	116.0	11.0	2009	
19-Apr-10	3R	4A737E2413	J	66.2	77.1	61.1	34.0	82.0	9.6	2009	
19-Apr-10	10R11L	4A715E3E7F	J	70.4	82.9	63.8	34.7	94.0	11.3	2009	
19-Apr-10	1R	4B04543A01	J	54.4	66.5	51.9	27.8	52.0	7.4	2009	
19-Apr-10	11L	4B047A5E4A	F	56.6	68.3	53.8	27.3	55.0	7.6	2009	
19-Apr-10	2R	4A71545F16	J	92.5	107.0	89.9	46.8	227.0	14.9	2009	ANO V5
19-Apr-10	9R	4A72361860	J	70.5	81.6	65.1	34.3	97.0	10.0	2009	ANO V3-5
19-Apr-10	1R2R	4A767C5D2D	J	79.7	91.0	77.0	38.0	131.0	12.9	2009	
19-Apr-10	11R	4A7229222B	J	69.5	79.1	65.3	34.4	87.0	9.8	2009	
19-Apr-10	10L	4A725B3B4D	J	70.8	83.1	67.8	30.8	103.0	11.8	2009	
19-Apr-10	11L	4B09745A5E	J	68.4	81.5	68.4	34.5	97.0	9.8	2009	
19-Apr-10	10R10L	4A72653F10	F	70.4	81.5	67.2	36.3	117.0	13.0	2009	13 MARGINALS ON RIGHT;
19-Apr-10	9R12L	4B132D3E2B	J	75.7	89.5	72.1	37.4	124.0	10.7	2009	
19-Apr-10	3R	4B1644542E	J	74.3	86.8	71.1	36.2	106.0	11.8	2009	
19-Apr-10	2L	4B02375D58	J	69.8	80.4	66.5	35.4	92.0	10.7	2009	
19-Apr-10	10L	4B1754720B	J	50.3	58.0	47.2	25.8	37.0	6.9	2009	
19-Apr-10	12L	4A712C0300	J	56.4	67.4	55.5	27.2	52.0	8.4	2009	
19-Apr-10	2L	4B04445B34	J	73.3	86.6	70.7	33.8	111.0	11.4	2009	
19-Apr-10	9L10L	4A7700065E	J	71.7	83.6	68.8	35.7	103.0	11.5	2009	
19-Apr-10	10R11L	4B046C260F	J	56.7	66.1	51.6	28.8	51.0	9.3	2009	ANO V5
19-Apr-10	2R	4B050F303E	J	51.6	59.9	49.8	26.5	42.0	7.9	2009	
20-Apr-10	11R	48436D2A38	J	72.3	84.8	68.0	36.6	109.0	9.7	2009	ANO V5
20-Apr-10	2L	487212716D	J	70.5	81.5	67.3	36.0	98.0	11.2	2009	ANO V5
20-Apr-10	2L	4848407622	F	81.4	95.5	81.2	39.3	152.0	11.3	2009	
20-Apr-10	12R	48702E585C	F	87.4	100.8	83.6	41.6	187.0	12.1	2009	
20-Apr-10	1R	4872084C33	F	86.6	98.4	79.6	41.1	168.0	13.5	2009	ANO V5
20-Apr-10	9L10L	4870474051	J	81.9	91.1	76.9	40.8	152.0	12.2	2009	
20-Apr-10	12L	4871701618	J	81.6	91.7	77.1	41.3	136.0	11.9	2009	
20-Apr-10	1R	48716B270E	J	73.1	84.9	71.4	36.5	112.0	10.8	2009	
20-Apr-10	9R	48470F7965	F	88.2	99.9	83.4	45.4	185.0	11.5	2009	
20-Apr-10	12L	4843520400	J	64.6	74.8	59.1	32.3	67.0	9.6	2009	
20-Apr-10	10L	484853540A	J	61.2	71.4	58.9	31.4	62.0	9.7	2009	
20-Apr-10	12L	48486B2501	J	75.3	86.1	70.2	35.8	111.0	12.8	2009	
20-Apr-10	11L	48481A1746	J	69.9	81.2	67.3	35.5	96.0	10.1	2009	
20-Apr-10	9R	4848186725	J	52.2	60.0	49.4	26.4	44.0	7.5	2009	ANO V5; 10 COSTALS
20-Apr-10	3R	484D15626B	J	53.8	63.4	50.2	27.9	45.0	8.4	2009	

Date	Notch ID	PIT ID	Sex	PL	CL	Width	Height	Weight	RP	DOB	Comments
20-Apr-10	3R	4864305F7B	J	64.2	75.9	62.0	33.0	77.0	9.5	2009	
20-Apr-10	10R11L	484D072E45	J	59.8	70.7	56.2	31.2	63.0	9.8	2009	
20-Apr-10	2R	48484D5040	J	66.0	80.8	67.8	34.3	94.0	11.8	2009	
20-Apr-10	12L	484C6F5A1E	J	72.4	81.4	69.3	34.8	103.0	12.4	2009	
20-Apr-10	9L10L	4864357D54	J	61.3	68.4	57.9	30.7	66.0	8.5	2009	
20-Apr-10	1L	4847686B26	F	81.3	96.6	79.4	40.2	159.0	12.9	2009	
20-Apr-10	10L	48481D3203	J	63.2	85.4	61.4	31.7	73.0	10.7	2009	
20-Apr-10	1R	48487E2662	J	78.1	91.9	73.1	36.7	130.0	11.9	2009	
20-Apr-10	12R	484C7E1554	J	79.7	92.5	75.4	39.3	135.0	12.1	2009	
20-Apr-10	1R	4848256632	F	91.4	107.0	90.6	45.1	223.0	13.6	2009	
20-Apr-10	9R	48480D6672	J	86.5	99.3	78.7	42.1	177.0	14.0	2009	
20-Apr-10	1R	48705D400D	F	97.4	109.9	93.7	46.4	246.0	17.1	2009	
20-Apr-10	1L	48677F4303	F	97.8	114.1	92.8	46.4	242.0	14.0	2009	
20-Apr-10	2R	48720B1138	J	77.4	88.9	77.6	41.1	150.0	13.6	2009	
20-Apr-10	1L	48475D7F21	J	62.9	73.4	63.1	32.4	81.0	8.2	2009	
20-Apr-10	10R	4848650D78	J	78.6	89.6	74.4	39.3	139.0	10.8	2009	ANO V5
20-Apr-10	3R	486A13112F	F	82.8	95.5	76.8	38.9	143.0	14.1	2009	
20-Apr-10	9L	487208071B	J	63.8	74.9	60.9	31.5	71.0	10.1	2009	
20-Apr-10	9L	4848223D1B	J	66.0	75.1	60.8	32.2	74.0	9.6	2009	
20-Apr-10	9L	487178647F	J	68.4	77.9	62.4	34.0	79.0	10.1	2009	
20-Apr-10	9L	484C6D5F40	J	57.6	67.1	54.4	30.0	56.0	8.8	2009	
20-Apr-10	9L	48434E3F1B	J	64.6	73.9	59.3	31.1	67.0	9.5	2009	
20-Apr-10	9L	4867766E3C	J	62.6	72.6	60.1	31.6	70.0	9.2	2009	
20-Apr-10	1R2R	4848564361	J	78.9	90.3	76.2	40.0	141.0	12.4	2009	
20-Apr-10	11R	4848133128	J	78.9	90.2	74.6	37.9	133.0	11.4	2009	
20-Apr-10	3R	48640E3B5C	J	65.9	78.1	64.1	35.2	90.0	10.7	2009	
20-Apr-10	9R	484C7E2133	J	73.7	84.8	70.0	35.2	115.0	9.8	2009	ANO V2-3,5
20-Apr-10	9L10L	4870423B1C	J	83.5	93.2	75.8	42.1	161.0	12.7	2009	
20-Apr-10	12R	4872116160	J	73.5	85.7	73.3	38.9	128.0	10.3	2009	
20-Apr-10	10L	484D1E5963	F	79.7	90.2	75.5	40.4	143.0	13.6	2009	
20-Apr-10	11L	4871701F7D	F	80.9	95.1	79.0	40.7	157.0	12.2	2009	
20-Apr-10	1L	48483C0A3B	J	69.7	81.9	66.4	33.9	98.0	10.8	2009	26 MARGINALS
20-Apr-10	2R	4848143E1C	J	67.9	78.9	63.6	33.5	85.0	11.0	2009	
20-Apr-10	2L	48483E5F62	J	68.2	77.7	66.1	31.9	84.0	11.0	2009	
20-Apr-10	12R	4848D63C23	J	75.6	84.7	71.2	35.5	112.0	11.0	2009	
21-Apr-10	9L10L	4848307E7E	J	53.3	60.8	47.0	26.4	43.0	8.3	2009	
21-Apr-10	12R	487215DC69	J	54.6	64.6	52.1	28.7	51.0	8.3	2009	
21-Apr-10	11L	484D17187A	J	53.1	63.0	50.8	28.4	45.0	7.4	2009	
21-Apr-10	12L	4848320156	J	74.0	82.3	69.2	35.7	99.0	12.7	2009	
21-Apr-10	10R10L	484D0D797F	F	74.9	87.2	71.9	38.6	118.0	12.3	2009	
21-Apr-10	10R12L	48702E0633	J	73.7	86.4	72.4	40.1	115.0	11.9	2009	
21-Apr-10	10R12L	4871780859	J	60.8	70.1	60.2	32.4	65.0	8.6	2009	
21-Apr-10	10R10L	4864001E5A	J	59.3	70.5	57.5	31.6	60.0	9.2	2009	
21-Apr-10	10R10L	484D24161A	J	73.5	85.9	71.2	38.8	113.0	11.7	2009	
21-Apr-10	10R12L	4848625B2E	J	72.0	84.4	72.5	38.0	107.0	10.2	2009	
21-Apr-10	9R12L	4868071D64	J	74.6	87.6	68.6	37.1	110.0	11.7	2009	
21-Apr-10	10R12L	484D1F6C33	F	76.1	89.3	76.0	40.7	140.0	12.4	2009	
21-Apr-10	9R12L	48677C5403	J	76.2	88.9	72.6	35.7	113.0	12.1	2009	

Date	Notch ID	PIT ID	Sex	PL	CL	Width	Height	Weight	RP	DOB	Comments
21-Apr-10	10R10L	4848021B21	F	78.6	90.5	72.8	38.8	132.0	12.7	2009	
21-Apr-10	10R10L	48480B3F7B	J	61.6	72.7	58.2	32.4	63.0	9.7	2009	
21-Apr-10	10R12L	48720E7C25	J	68.6	76.7	65.2	35.1	83.0	11.4	2009	ANO V4-5
21-Apr-10	10R12L	48485C3F09	J	61.7	71.2	59.0	32.1	65.0	9.0	2009	
21-Apr-10	10R10L	48696E4663	J	61.0	68.1	56.2	29.9	61.0	10.8	2009	ANO V5
21-Apr-10	10R10L	4871741503	J	72.2	82.6	66.9	34.6	101.0	11.0	2009	
21-Apr-10	9R12L	484D1F5408	F	87.4	97.9	82.2	40.6	165.0	12.2	2009	
21-Apr-10	9R12L	48681D2420	J	65.5	76.1	62.3	32.2	72.0	9.8	2009	
21-Apr-10	10R12L	484C78441B	J	58.7	67.0	57.8	31.6	60.0	9.4	2009	
21-Apr-10	10R10L	48682F6F14	J	73.0	82.7	67.1	36.9	100.0	11.7	2009	
21-Apr-10	9R12L	484856284A	J	64.6	74.0	61.2	31.9	70.0	9.5	2009	
21-Apr-10	10R12L	4870577163	J	42.5	48.5	40.4	24.8	28.0	5.5	2009	
21-Apr-10	9R12L	484D18352E	J	34.6	40.0	32.4	18.2	13.0	5.7	2009	
21-Apr-10	10R10L	48470E4B38	F	83.4	95.7	77.7	39.4	143.0	13.6	2009	
21-Apr-10	9R12L	487040610E	F	82.1	91.8	77.7	39.9	141.0	12.5	2009	
21-Apr-10	10L12L	4863797E48	J	55.7	65.2	53.5	30.3	54.0	7.9	2009	
21-Apr-10	10L12L	48481D6A42	J	56.8	66.4	56.2	30.1	60.0	8.7	2009	
21-Apr-10	10L12L	48484B0E44	J	52.3	61.9	51.4	29.2	50.0	7.1	2009	
21-Apr-10	10L12L	484D244C6F	J	42.7	50.2	41.7	24.2	29.0	6.0	2009	
21-Apr-10	10L12L	48482C334F	J	38.6	45.6	37.7	20.8	20.0	5.5	2009	
21-Apr-10	1R2R	48167F4466	J	59.9	70.3	59.7	30.3	66.0	9.1	2009	
21-Apr-10	11R	48485F292A	J	69.8	82.5	66.3	33.8	95.0	9.9	2009	
21-Apr-10	10L12L	484D262D51	J	49.0	57.4	48.2	26.9	42.0	7.4	2009	
21-Apr-10	10L12L	4868260820	J	50.1	58.6	48.2	27.3	41.0	7.6	2009	
21-Apr-10	10L12L	4825200C3A	J	51.0	60.3	50.7	28.6	48.0	7.2	2009	
21-Apr-10	10L12L	4868096046	J	45.4	54.0	43.7	25.3	33.0	6.5	2009	
21-Apr-10	10L12L	4821624271	J	51.0	59.5	49.4	28.2	41.0	8.0	2009	
21-Apr-10	10R11L	48704D2B4A	J	48.1	57.0	46.0	24.8	32.0	6.5	2009	
21-Apr-10	10R11L	48682F693A	J	43.3	50.0	41.1	21.9	24.0	6.0	2009	
21-Apr-10	10R11L	484D1F106B	J	48.8	55.8	44.4	24.1	30.0	7.5	2009	
21-Apr-10	10R11L	48484E0200	J	48.0	55.0	44.3	24.0	28.0	6.7	2009	
21-Apr-10	10R11L	4867766A26	J	44.2	52.4	41.1	22.1	24.0	6.2	2009	
21-Apr-10	9R12L	4867731D37	J	71.5	85.5	70.9	34.9	105.0	10.2	2009	
21-Apr-10	9R12L	487205781B	J	75.5	89.1	73.9	38.9	117.0	10.6	2009	
21-Apr-10	10R12L	48475C5467	J	56.2	68.9	56.2	30.9	58.0	9.0	2009	
21-Apr-10	9R12L	484855083A	J	60.5	70.0	57.1	31.4	60.0	9.6	2009	
21-Apr-10	11R	4871644B00	J	53.0	61.8	50.3	28.5	49.0	8.2	2009	
21-Apr-10	1R2R	48705D3D76	J	50.5	60.4	48.7	27.2	41.0	7.0	2009	
6-Apr-10	9R12L	424D36295C	J	78.0	91.0	70.0	27.0	141.9		2009	
6-Apr-10	11R10L	424D440047	J	75.0	89.0	71.0	37.0	150.0		2009	
6-Apr-10	11R10L	1BF1CE674A	J	69.0	76.0	63.0	33.0	100.0		2009	
6-Apr-10	9R12L	424F393D67	J	88.0	91.0	72.0	35.0	151.9		2009	
6-Apr-10	11R10L	424F157D52	J	78.0	82.0	68.0	33.0	122.0		2009	
6-Apr-10	9R12L	1BF1A1B293	J	75.0	87.0	67.0	37.0	135.3		2009	
16-Apr-10	11R10L	4A732D3D76	J	83.3	95.7	79.7	39.4	157.3		2009	
16-Apr-10	11R10L	4B0324005B	J	80.3	93.0	76.8	38.3	146.0		2009	
16-Apr-10	9R12L	4A7221716C	J	87.0	102.0	80.9	40.1	167.5		2009	
16-Apr-10	9R12L	4A7144773F	J	79.6	90.6	71.8	36.5	114.8		2009	

Date	Notch ID	PIT ID	Sex	PL	CL	Width	Height	Weight	RP	DOB	Comments
16-Apr-10	11R10L	4A71453A2D	J	86.3	96.6	79.8	42.5	168.0		2009	
16-Apr-10	9R12L	4A71453566	J	81.0	93.0	74.2	38.6	133.4		2009	
16-Apr-10	11R10L	4A7708605D	J	77.1	89.6	73.8	39.2	130.4		2009	
16-Apr-10	9R12L	4B030F6854	J	83.0	95.0	77.4	39.0	147.3		2009	
2-Jul-10		257C659B13	J	62.5	65.0	55.0	27.1	119.5		2009	
23-Jul-10		257C65E49B	J	98.4	114.2	93.0	50.2	270.3		2009	
23-Jul-10		424F076676	J	106.3	126.0	97.7	51.3	310.2		2009	
23-Jul-10		1BF1A7DBF2	J	102.1	125.5	96.2	53.5	324.3		2009	
23-Jul-10		4250306F74	J	105.8	122.5	97.8	52.1	283.3		2009	
23-Jul-10		4B030A312E	J	109.2	127.3	103.3	55.6	349.2		2009	
23-Jul-10		4B0261111B	J	103.5	123.1	96.5	50.6	331.7		2009	