THE CULTURAL LANDSCAPE OF JÁCANA

VOLUME II
PART 9
THE ZOOARCHAEOLOGY OF JÁCANA

ARCHAEOLOGICAL INVESTIGATIONS OF SITE PO-29
MUNICIPIO DE PONCE, PUERTO RICO

US Army Corps of Engineers
Jacksonville District

The Cultural Landscape of Jácana: Archaeological Investigations of Site PO-29, Municipio de Ponce, Puerto Rico

Volume II, Part 9: The Zooarchaeology of Jácana

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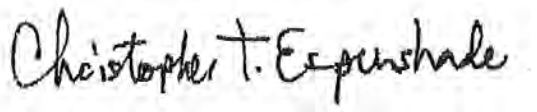

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THE CULTURAL LANDSCAPE OF JÁCANA: ARCHAEOLOGICAL INVESTIGATIONS OF SITE PO-29 REPORT STRUCTURE

New South Associates, Inc. is pleased to present a comprehensive study of the Archaeological Investigations of Site PO-29 located in Municipío de Ponce, Puerto Rico. This study is submitted in a two-volume, multi-component series.

Volume I is a synthesis of the results of the technical information presented in Volume II.

Volume II presents a collection of 10 sections that concentrate on the technical aspects andanalyses of the site. Each part is separated out by specialization. The following is a list of the different parts and what they entail:

- Part 1: Introduction, Natural and Cultural Settings, and Method
- Part 2: Site Contexts and Feature Patterning
- Part 3: Batey Borders/Rock Art
- Part 4: The Houses of Jácana
- Part 5: Human Remains from Jácana
- Part 6: The Pottery of Jácana
- Part 7: Lithic Artifacts of Jácana
- Part 8: Paleoethnobotany of Jácana
- Part 9: The Zooarchaeology of Jácana
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I. INTRODUCTION

This faunal report details the results of the analysis of both vertebrate and invertebrate animal remains recovered during 2006 and 2007 by New South Associates, Inc. under contract with the Army Corps of Engineers.

Faunal remains recovered during excavation of the archeological site of PO-29, or Jácana provide important information regarding food procurement strategies, food distribution, human environmental relationships, as well as the possible importance of certain animals within the contexts of domestic and ceremonial activities. At a distance of 11 kilometers from the coast, the site contains fauna from local habitats, as well as marine and coastal habitats. PO-29 also contains a large stone-lined batey with multiple petroglyphs, as well as a large midden mound and many human burials. The indication of ceremonial behavior provides an opportunity to study patterns of association between particular animal taxa and ritual activities, and perhaps the high-status people involved.

Site PO-29 saw a long occupation, spanning from A.D. 400 to the time of European contact, with an extended period of abandonment between A.D. 900 and 1300. The site chronology was developed by Chris Espenshade (see Part 1). Change through time in animal exploitation strategies correlates with the impact on the environment and habitats as people living in south central Puerto Rico continued to expand and harvest resources. Changes through time also reflect the changing trends in social, political, and economic relationships within and between groups living in the area.

Following this introduction, Chapter II discusses the environmental settting at PO-29. Chapter III contains methods and theory behind the zooarchaeological analysis. The results are listed in Chapter IV and are then discussed more in detail in Chapter V. Following the chapters is the References Cited section. Appendix A lists the faunal specimen catalog and is separated by invertebrate and vertebrate and then by each unit and feature.

II. ENVIRONMENTAL SETTING

Site PO-29 is located in south-central Puerto Rico in the foothills of the *Cordillera Central*, the mountain chain that spans the central part of the island. It lies on the western bank of the *Rio Portugués*, or Portugués River, at an elevation of 137 meters and approximately 11 kilometers from the south coast of Puerto Rico, 14 kilometers if traveled by river. The local climate at site PO-29 falls within the Subtropical Dry Forest Life Zone (Ewel and Whitmore 1973). This area of the island receives only 40 inches of rain per year and is considered the driest zone on the island. Tropical, moisture-carrying winds affect the island on the north and eastern coasts, providing heavy rains on those parts of the island. However, the mountains of the cordillera produce a barrier or rain shadow that prevents precipitation in the south.

The settlements at PO-29 had direct access to a variety of habitats able to provide ample protein sources. The upland forests that encompass PO-29 provided habitat for the terrestrial fauna exploited by its inhabitants. Human activities at the site, especially horticultural activities, likely produced microhabitats (gardens, clearings, domestic areas, refuse, etc.) that would have attracted animals, such as hutia, birds, and iguanas, increasing ease of capture. Site PO-29 is situated adjacent to the Portugués River. Marine and riverine resources represent the majority of fauna in archaeological deposits in the region. The rivers acted as a source of brackish and freshwater fish species and various edible invertebrates including freshwater shrimp and crabs (deFrance et al. 2010). Another significant benefit of the site's locations is that the Portugués River served as a conduit to nearby settlements as well as a mode of transport to and from the coast.

Rather than heavily eroded rocky shores common on the north coast, the south coast contains calm bays, flats, and mangrove swamps (Kendall et al. 2001). These habitats provide invertebrates (i.e. mollusk species) that are distinct from those found off the turbulent north coast of the island. The results of this study, and others in the area, indicate that both gastropod and bivalve species recovered from these sites were specific to shallow water habitats (deFrance et al. 2010; Robinson 1985). The Portugués river also provides fresh water, riverine and brackish water, and mangrove habitats for edible fish species including Mullet (*Mugil* sp.), Gobies (family Gobiidae), and freshwater eels (*Anquilla rostrata*). Several marine ecological zones within one to two kilometers of the mouth of the Portugués River include intertidal habitats (lagoon and flats), coral reef, and pelagic habitats (Kendall et al. 2001).

III. ANALYTICAL AND THEORETICAL APPROACH

Data from the zooarchaeological analysis of faunal remains from site PO-29 are used to address patterns of animal use at the site on both spatial and temporal planes. The faunal data in this report are interpreted with consideration of specific contexts and associations. This contextual archaeological approach considers faunal remains as part of a larger archaeological assemblage and can be interpreted based on specific contexts. Therefore faunal data are used in conjunction with other lines of evidence to answer questions that go beyond those of subsistence and environment.

Comparative analyses of faunal remains from predefined occupation events are made in order to determine whether behavioral patterns regarding animal use changed through time. Excavations at the site of Tibes, approximately five kilometers to the south, also on the Portugués River, have revealed that formative social processes occurred through time on some level (Curet et al. 2006; Curet 2010). However, zooarchaeological analysis at Tibes suggests that there was little or no change in patterns of animal use until the introduction of the guinea pig (*Cavia porcellus*) late in its occupation (deFrance et al. 2010). PO-29 was not occupied until A.D. 400, four centuries after the first settlement at Tibes. However, excavations have revealed gradual expansion and intensification of the site over time (Espenshade et al. 2009; see also Part 2). The earliest components, Jácana 1 and 2, encompass a 500-year occupation wherein the site acted primarily for habitation. Several domestic structures and middens have been identified along with human burials. A period of abandonment, Jácana 3, beginning around A.D. 900, lasted approximately 400 years until the site was reoccupied around A.D. 1300. The last pre-Columbian occupation period, Jácana 4, lasted approximately to the time of European contact. Jácana 4 is defined by the construction of the large stone-lined batey, with the incorporation of iconography, overlying dozens of burials (see Part 5). The marked changes in site use between Jácanas 2 and 4 offer a unique opportunity to compare patterns of animal use during these two time periods.

Extensive excavations at the site have revealed multiple contexts including identified domestic and ceremonial spaces (Espenshade et al. 2009). The comparison of faunal remains between ceremonial and domestic contexts is made in order to determine differential use of animals, and whether certain taxa were restricted to specific activities. With well-defined contexts, various aspects of human behavior can be studied, including issues dealing with social inequality. Ceremonial activities are widely accepted as being controlled by higher status individuals.

Archaeological evidence in the Caribbean thus far has failed to detect whether or not animal goods were a source of elite capital (deFrance 2009). This could be because of the abundance and diversity of marine resources available to the inhabitants of tropical islands. The presence of marine taxa at inland sites, however, demonstrates some level of organization, either for fishing expeditions, trade, or negotiation for use of coastal fishing and collecting grounds. Also, the secondary distribution of food at inland sites, such as PO-29, where access to marine foods is restricted by distance, may be detectable. At the local level, larger fish, sea mammals, large sea turtles, and other rare animals are expected in contexts of ceremonial (high-status) activities (deFrance and LeFebvre 2009). Faunal data from sites in association with Caguana in central Puerto Rico, have demonstrated that certain animal taxa, namely river crabs, appear only in association with ceremonial activities (Oliver and Narganas-Storde 2005). At PO-29, ceremonial contexts have been defined by their association with the batey and the adjacent large midden mound. Domestic contexts are those situated away from the batey and are associated with house structures and smaller domestic middens (Espenshade et al. 2009; see also Part 6). The archaeological faunal assemblage would be similar across space or in ceremonial contexts if ceremonial activities included egalitarian feasts, wherein food was evenly distributed among all people. This may be what is observed at Tibes where despite the presence of multiple bateys and ceremonial space, differential use of animal foods is not very visible (deFrance 2010; deFrance et al. 2009).

MATERIALS AND METHODS

Faunal remains analyzed for this report were collected during all phases of excavation in 2006 through 2007 by New South Associates under contract with the Army Corps of Engineers. Analyzed contexts used in this study are presented in Table 1, along with their associated temporal and spatial components. The data from the samples were analytically combined on the basis of temporal and spatial contexts. For the basis of this discussion, Midden Mound and Batey contexts are combined and labeled “Batey” in the table.

Table 1. Analyzed Contexts

Unit	Feature	Context	Stratum	Temporal Component	Spatial Component
107		Midden Mound	n/a	Jácana 2/4	Batey
126		Midden Mound	n/a	Jácana 2/4	Batey
127		Midden Mound	n/a	Jácana 2/4	Batey
138		Midden Mound	n/a	Jácana 2/4	Non-Batey
138	217	Midden Mound	n/a	Jácana 4	Non-Batey
138	218	Midden Mound	n/a	Jácana 4	Non-Batey
145		Midden Mound	B,C	Jácana 2/4	Batey

Table 1. Analyzed Contexts

Unit	Feature	Context	Stratum	Temporal Component	Spatial Component
145		Midden Mound	E	Jácana 2	Batey
146		Midden Mound	A	Jácana 4	Batey
146		Midden Mound	B,C	Jácana 2/4	Batey
146		Midden Mound	D,E	Jácana 2	Batey
146	115	Midden Mound	B	Jácana 2/4	Batey
147		Midden Mound	B,C	Jácana 2/4	Batey
147		Midden Mound	D,E	Jácana 2	Batey
148		Midden Mound	B,C	Jácana 2/4	Batey
148		Midden Mound	D,E	Jácana 2	Batey
149		Midden Mound	B,C	Jácana 2/4	Batey
149		Midden Mound	D,E	Jácana 2	Batey
149	112	Midden Mound	n/a	Jácana 4	Batey
150		Midden Mound	B,C	Jácana 2/4	Batey
150		Midden Mound	B,C	Jácana 2	Batey
150	108	Midden Mound	n/a	Jácana 4	Batey
151		Midden Mound	A, B,C	Jácana 2/4	Batey
151		Midden Mound	D,E	Jácana 2	Batey
151	280	Midden Mound	n/a	Jácana 2	Batey
151	179	Midden Mound	n/a	Jácana 2	Batey
153		N. Batey	n/a	Jácana 4	Batey
126, 127	101	Midden Mound	n/a	Jácana 2/4	Batey
145, 147	116	Midden Mound	n/a	Jácana 2/4	Batey
148, 149	111	Midden Mound	n/a	Jácana 2	Batey
Scrape F		FX-F	General Collection	Jácana 2	Non-Batey
Scrape F	491	FX-F	n/a	Jácana 2	Non-Batey

The majority of the materials from hand-excavated test units were recovered using 0.25 inch (6.35 mm) mesh screens. Additionally, volumetric soil samples of less than 10 liters were collected from site features and processed by flotation and fine-meshed 0.0625 inch (2 mm) screens. Some of the analyzed faunal material is from grab samples collected from machine-excavated soils.

Vertebrate and invertebrate faunal remains were transported to the University of Florida. Taxonomic identifications of the vertebrate material were made using the comparative collections of the Florida Museum of Natural History's Environmental Archaeology Laboratory. A few mollusk specimens were identified with the help of the collections of the Malacology

Laboratory and the Florida Museum of Natural History. All specimens were identified to species or genus when possible. Fragmentary or eroded specimens were identified to the lowest possible taxonomic level. Skeletal elements were identified and the side (left or right) of each was determined if possible. Evidence of butchery, burning, or other modifications was recorded. Any evidence of age or sex of the animal was also recorded. The number of specimens for each taxon was counted to determine the number of identified specimens (NISP). Identified specimens were weighed. Minimum number of individuals (MNI) for each identified taxa in an analytical context was determined using paired skeletal elements, specimen size, and age characteristics (e.g., epiphyseal fusion of mammal long bones).

Invertebrate remains were identified at the zooarchaeology lab of the anthropology department at the University of Florida. Taxonomic identifications were made using shell identification references (Warmke and Abbott 1961; Abbot and Morris 1995) as well as comparative specimens housed in the Envronmental Archaeology, and Malacology Laboratories at the Florida Museum of Natural History. Valve side (left or right) was determined for bivalves. Any modifications to the remains, including burning, cutting, drilling, or use-wear were recorded. Specimens were counted and weighed. NISP was recorded and MNI was determined. MNI are determined from sided bivalves using the specimens with intact hinges or umbos. Gastropod MNI was based on intact portions of elements that appear only once on the animal, such as apices or siphonal canals.

Archaeological material for each unit was excavated in arbitrary 10 centimeters levels within natural and cultural levels (or “strata”). Materials were analytically combined based on the temporal designation assigned to these levels by unit. For example, if levels seven to nine were determined to be from the Jácana 2 occupation component, those levels would be analyzed as a single context, within which NISP and MNI would be determined for each taxon.

The weight of bone and shell can be used to determine estimates of minimum meat weight contribution for certain taxa. These estimates contribute another level of analytical comparison concerning subsistence. Edible meat weigh estimates are based on an allometric regression formula that accounts for how an animal’s body size determines the proportional relationship between skeletal (or shell) and non-skeletal mass:

$$Y = aX^b.$$

In this formula, *X* is the weight of archaeological bone or shell, *Y* is the weight of edible meat, *b* is an allometric constant that defines the slope of the line, and *a* is the Y intercept of the line. Edible meat weight estimates are calculated using linear regression analysis to establish values for *Log a* and *b* from modern specimens of known weight. Values used in this analysis are

presented in Table 2. Invertebrate estimates of minimum meat weight are from calculations of the mass of small tissue and do not include the shell. Values of minimum meat weight for vertebrates are from estimates of muscle tissue mass.

Table 2. Established Values for Log a and b for Calculating Edible Meat Weight

Taxon	Log a	b	Source
Mammalia	1.41	0.81	Quitmyer 1985
Aves	1.24	0.84	Quitmyer 1985
Serpentes/Lacertilia	1.06	0.94	Quitmyer 1985
Testudines	1.65	0.53	Quitmyer 1985
Chondrichthyes	0.94	1.38	Quitmyer 1985
Osteichthyes	1.34	0.9	Hale and Walker 1986
Strombidae	-0.68	0.88	Hale et al. 1987
Gastropoda	-0.16	0.92	Hale et al. 1987
Bivalvia	0.02	0.68	Hale et al. 1987

IV. RESULTS

The identified taxa are presented in Table 3 and include common names as well as their associated habitats. Tables 4 and 5 list all taxa from unmixed prehistoric contexts and their NISP, MNI, weight, and estimated meat weight contributions. The NISP of all unmixed contexts is 11,135 with an MNI of 2,535. A total of 75 invertebrate taxa including 43 bivalves and 32 gastropods were identified. Of the 43 vertebrate taxa identified, four are mammals, six are birds, six are reptiles and 25 were bony fish and two are cartilaginous fish. Non-edible coral and terrestrial gastropods were analyzed along with the other faunal material, but were not included in the comparative analyses. Invertebrate and vertebrate results are presented and compared separately to avoid bias due to differential preservation of shell and bone.

Table 3. Identified Taxa at PO-29

Taxon	Common Name	Local/ Terrestrial	Riverine	Mangrove/ Brackish	Shorline/ Beach	Shallow/ Inshore	Reef	Pelagic
Bos taurus	Bovine (Cattle)							
Sus scrofa	Domestic Pig							
Nesophontes edithae	Puerto Rican Shrew	X						
Cavia porcellus	Guinea Pig							
Isolobodon portoricensis	Hutia	X						
Rodentia	Rodents	X						
Trichechus manatus	Manatee		X	X		X		
Mammalia	Mammals							
Ardeidae	Herons		X	X				
Anas discors	Blue-Winged Teal			X				
Columbidae	Pigeons and doves	X						
Passerformes	Perching Birds or Song Birds	X						
Fulica sp.	Coots			X				
Rallidae	Rails	X	X	X				
Aves	Birds							
Cyclura sp.	Iguana	X						
Iguanidae	Iguanid Lizards	X						
Lacertilia	Lizards	X						

Table 3. Identified Taxa at PO-29

Taxon	Common Name	Local/ Terrestrial	Riverine	Mangrove/ Brackish	Shorline/ Beach	Shallow/ Inshore	Reef	Pelagic
Emydidae	Emydid turtle (fresh water)		X					
Cheloniidae	Sea Turtles				X	X		
Testudines	Turtle							
Colubridae	Colubrid snakes	X						
Reptilia	Reptiles							
Elops saurus	Lady Fish					X		
Anguilla rostrata	American Eel		X	X				
Clupeidae	herrings, shads, sardines					X		
Exocoetidae	Flying Fish						X	X
Centropomus sp.	Snook					X		
Epinephelus itijara	Goliath Grouper						X	
Epinephelus sp.	Grouper						X	
Mycteroperca sp.	Grouper						X	
Centropristis sp.	Black Sea Bass						X	
Serranidae	Sea Basses						X	
Caranx crysos	Blue Runner						X	
Caranx sp.	Jack						X	
Carangidae	Jacks						X	
Lutjanus sp.	Snappers						X	
Lutjanidae	Snappers						X	
Haemulon sp.	Grunt						X	
Haemulidae	Grunts						X	
Calamus sp.	Porgy						X	
Mugil sp.	Mullet		X	X				
Lachnolaimus sp.	Hog Fishes						X	
Scarus sp.	Parrotfish						X	
Sparisoma sp.	Parrotfish						X	
Scaridae	Parrotfishes						X	
Gobiomorus dormitor	Bigmouth Sleeper		X	X				
Eleotridae	Sleepers		X	X				
Sphyraena sp.	Barracuda							X
Thunnus sp.	Tuna							X
Balistidae	Trigger Fish						X	
Diodon sp.	Blowfish						X	

Table 3. Identified Taxa at PO-29

Taxon	Common Name	Local/ Terrestrial	Riverine	Mangrove/ Brackish	Shorline/ Beach	Shallow/ Inshore	Reef	Pelagic
Diodontidae	Porcupinefish							
Osteichthyes	Bony Fish							
Lamniformes	Mackerel Sharks						X	X
Rajiformes	Rays						X	X
Decapoda	Crabs, crustaceans							
Megalomastoma croceum	Land snail							
Pleurodonte sp.	Land snail							
Anadara brasiliana	Incingrous ark					X		
Anadara chemnitzi	Chemnitz's ark					X		
Anadara floridana	Cut-Ribbed ark					X		
Anadara notabilis	Eared ark					X		
Anadara ovalis	Blood ark					X		
Anadara sp.	Ark					X		
Arca imbricata	Mossy ark					X	X	
Arca zebra	Turkey wing ark					X	X	
Arca sp.	Ark					X		
Barbatia cancellaria	Red-brown ark					X		
Barbatia candida	White-beard ark					X		
Arcidae	Arks					X		
Pectinidae	Scallops					X		X
Pliculata gibbosa	Atlantic kittenpaw					X		
Isognomon alatus	Flat Tree oyster					X		
Crassostrea rhizophorae	Caribbean oyster					X		
Crassostrea sp.	Oyster					X		
Ostreidae	Oysters					X		
Codakia costata	Costate lucine					X		
Codakia orbicularis	Tiger lucine					X		
Codakia orbiculata	Dwarf Tiger lucine					X		
Lucina pectinata	Thick lucine					X		
Lucina pectinatus	Jamaica lucine					X		
Phacoides pectinatus	Thick lucine					X		

Table 3. Identified Taxa at PO-29

Taxon	Common Name	Local/ Terrestrial	Riverine	Mangrove/ Brackish	Shorline/ Beach	Shallow/ Inshore	Reef	Pelagic
Lucinidae	Lucines						X	
Pseudochama radians	Atlantic jewelbox						X	
Chama macerophylla	Leafy jewelbox						X	
Chama sp.	Jewelbox						X	
Chamidae	Jewelboxes						X	
Trachycardium isocardia	Even pricklycockle					X		
Trachycardium muricatum	Yellow pricklycockle					X		
Americardia media	Atlantic strawberry cockle					X		
Cardiidae	Cockles					X		
Solen obliquus	Oblique Jackknife					X		
Solenidae	Razor clams					X		
Tellina fausta	Favored tellin					X		
Tellina magna	Great tellin					X		
Tellina sp.	Tellin					X		
Tellinidae	Tellins					X		
Donax denticulatus	Coquina					X		
Mytilopsis dominguensis	False mussel					X		
Anomalocardia brasiliana	West Indian pointed venus					X		
Chione cancellata	Cross-barred venus					X		
Chione granulata	Beaded venus					X		
Chione intapurpurea	Lady-in-waiting venus					X		
Rupellaria typica	Atlantic Rupellaria					X		
Bivalvia	Bivalves							
Astraea caelata	Carved starsnail					X	X	
Astraea sp.	Starsnails					X	X	
Cittarium pica	West Indian topsnail					X	X	
Trochidae	Topsnails					X	X	
Turbinidae	Turban					X	X	
Nerita sp.	Nerite			X		X	X	
Neritidae	Nerites			X		X	X	
Neritina clenchi	Clench's nerite			X		X	X	
Neritina sp.	Nerite			X		X	X	
Neritina virginea	Virgin nerite			X		X	X	
Turritella variegate	Variegate turretsnail					X		

Table 3. Identified Taxa at PO-29

Taxon	Common Name	Local/ Terrestrial	Riverine	Mangrove/ Brackish	Shorline/ Beach	Shallow/ Inshore	Reef	Pelagic
Turitella sp.	Turretsnails					X		
Nodilittorina tuberculata	Prickly winkle					X	X	X
Capulidae	Capsnails					X	X	X
Crepidula aculeata	Spiny slippersnail					X	X	X
Echininus nodulosus	False prickly-winkle					X	X	X
Fasciolaria tulipa	True tulip					X	X	X
Littorinidae	Periwinkle					X	X	X
Modulus modulus	Buttonsnail					X	X	
Cerithiidae	Ceriths/Hornsnails					X	X	
Strombus costatus	Milk conch					X	X	
Strombus gigas	Queen conch					X	X	
Strombus pugilis	West Indian fighting conch					X	X	
Strombus sp.	Conch					X	X	
Strombidae	Conchs					X	X	
Cassidae	Helmets					X	X	
Cassis sp.	Helmet					X	X	
Murex brevifrons	West Indian murex					X	X	
Murex pomum	Apple murex					X	X	
Murex sp.	Murex					X	X	
Muricidae	Murexes					X	X	
Vasum muricatum	Caribbean vase					X	X	
Olividae	Olives					X		
Vermetidae	Worm snails						X	
Faviidae (Brain Coral)	Brain coral						X	
Anthozoa	Coral						X	

Table 4. All Invertebrate Taxa from Unmixed Prehistoric Context

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight (g)	% Meat Weight
Americardia media	1	1	0.04	1.3	0.01	1.3	0.04
Anadara brasiliana	1	1	0.04	10.4	0.06	5.1	0.17
Anadara chemnitii	2	2	0.09	3.1	0.02	2.3	0.08

Table 4. All Invertebrate Taxa from Unmixed Prehistoric Context

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight (g)	% Meat Weight
Anadara floridana	2	2	0.09	20.0	0.11	8.0	0.27
Anadara leinosa floridana	8	7	0.30	64.6	0.37	17.8	0.60
Anadara notibilis	51	31	1.33	298.7	1.70	50.5	1.70
Anadara ovalis	27	31	1.33	57.8	0.33	16.5	0.56
Anadara sp.	48	11	0.47	64.0	0.37	17.7	0.60
Anomalocardia brasiliana	1,526	571	24.58	956.9	5.46	111.4	3.76
Arca imbricata	19	12	0.52	22.3	0.13	8.6	0.29
Arca sp.	13	3	0.13	6.2	0.04	3.6	0.12
Arca zebra	1,499	557	23.98	2,920.10	16.67	237.9	8.03
Arcidae	716	2	0.09	410.0	2.34	62.6	2.11
Astraea sp.	2	2	0.09	3.0	0.02	2.2	0.07
Barbatia cancellaria	1	1	0.04	3.9	0.02	2.6	0.09
Barbatia candida	2	2	0.09	2.8	0.02	2.1	0.07
Cardiidae	1	1	0.04	0.4	0.00	0.6	0.02
Chama macerophylla	7	7	0.30	101.6	0.58	24.2	0.82
Chama sp.	6	6	0.26	2.8	0.02	2.1	0.07
Chamidae	45	16	0.69	46.0	0.26	14.2	0.48
Chione cancellata	11	9	0.39	13.2	0.08	6.1	0.20
Chione intapurpurea	1	1	0.04	4.2	0.02	2.8	0.09
Codakia costata	1	1	0.04	1.9	0.01	1.6	0.05
Codakia orbicularis	324	76	3.27	419.0	2.39	63.5	2.14
Crassostrea rhizophorae	112	34	1.46	176.3	1.01	35.3	1.19
Crepidula aculeata	1	1	0.04	0.3	0.00	0.5	0.02
Donax denticulatus	1	1	0.04	0.1	0.00	0.2	0.01
Isognomon alatus	1	1	0.04	0.7	0.00	0.8	0.03
Lucina pectinata	23	11	0.47	45.2	0.26	14.0	0.47
Lucinidae	71	4	0.17	47.3	0.27	14.4	0.49
Mytilopsis dominguensis	2	2	0.09	0.1	0.00	0.2	0.01
Ostreidae	21	5	0.22	8.6	0.05	4.5	0.15
Phacoides pectinatus	31	19	0.82	100.8	0.58	24.1	0.81
Pliculata gibbosa	3	2	0.09	1.0	0.01	1.0	0.04
Pseudochama radians	1	1	0.04	2.2	0.01	1.8	0.06
Rupellaria typica	3	1	0.04	0.3	0.00	0.5	0.02
Solen obliquus	24	5	0.22	9.5	0.05	4.8	0.16

Table 4. All Invertebrate Taxa from Unmixed Prehistoric Context

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight (g)	% Meat Weight
Solenidae	9	6	0.26	5.3	0.03	3.3	0.11
Tellina fausta	105	38	1.64	504.10	2.88	72.1	2.43
Tellina magna	6	2	0.09	19.1	0.11	7.8	0.26
Tellina sp.	35	1	0.04	47.1	0.27	14.4	0.48
Tellinidae	176	19	0.82	202.90	1.16	38.8	1.31
Trachycardium isocardia	3	1	0.04	2.8	0.02	2.1	0.07
Bivalvia UID	912	3	0.13	286.9	1.64	49.1	1.66
Total Bivalvia	5,882	1,511	65.05	6,917.0	39.48	1,338.5	45.14
Astraea caelata	21	16	0.69	131.4	0.75	61.5	2.08
Astraea sp.	17	11	0.47	24.1	0.14	12.9	0.44
Capulidae	1	1	0.04	1.1	0.01	0.8	0.03
Cassidae	1	1	0.04	30.4	0.17	16.0	0.54
Cassis sp.	3	2	0.09	40.1	0.23	20.6	0.70
Cerithiidae	1	1	0.04	0.2	0.00	0.2	0.01
Chama macerophylla	1	1	0.04	8.4	0.05	4.9	0.17
Chamidae	15	1	0.04	8.4	0.05	4.9	0.17
Cittarium pica	48	10	0.43	128.1	0.73	59.1	1.99
Echininus nodulosus	2	2	0.09	1.7	0.01	1.1	0.04
Littorinidae	1	1	0.04	1.1	0.01	0.8	0.03
Modulus modulus	1	1	0.04	0.7	0.00	0.5	0.02
Murex brevifrons	1	1	0.04	38.6	0.22	19.9	0.67
Murex pomum	1	1	0.04	23.3	0.13	12.5	0.42
Murex sp.	19	13	0.56	110.1	0.63	52.3	1.76
Muricinae	39	23	0.99	340.1	1.94	147.6	4.98
Nerita sp.	1	1	0.04	0.1	0.00	0.1	0.00
Neritidae	3	3	0.13	1.3	0.01	0.9	0.03
Neritina clenchi	2	2	0.09	2.1	0.01	1.4	0.05
Neritina sp.	17	13	0.56	4.4	0.03	2.7	0.09
Neritina virginea	15	12	0.52	13.4	0.08	7.5	0.25
Nodilittorina tuberculata	1	1	0.04	0.5	0.00	0.4	0.01
Strombidae	238	51	2.20	984.8	5.62	90.0	3.03
Strombus costatus	6	4	0.17	252.0	1.44	27.1	0.91
Strombus gigas	13	6	0.26	89.2	0.51	10.9	0.37
Strombus pugilis	224	171	7.36	4,820.60	27.52	364.0	12.28
Strombus sp.	555	196	8.44	2,218.2	12.66	183.9	6.20

Table 4. All Invertebrate Taxa from Unmixed Prehistoric Context

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight (g)	% Meat Weight
Trochidae	1	1	0.04	2.0	0.01	1.3	0.04
Turbininae	4	3	0.13	5.2	0.03	3.2	0.11
Turritella variegata	474	225	9.69	549.7	3.14	229.6	7.74
Vasum muricatum	3	2	0.09	69.2	0.39	34.1	1.15
Vermetidae	16	1	0.04	0.4	0.00	0.3	0.01
Gastropoda UID	297	35	1.51	319.0	1.82	139.2	4.69
Total Gastropoda	2,014	812	34.95	10,197.7	58.21	1,626.4	54.86
Mollusca UID	874			404.5	2.31		
TOTAL INVERTEBRATA	8,770	2,323	100.00	17,519.2	100.00	2,964.9	100.00

Table 5. All Vertebrate Taxa from Unmixed Prehistoric Context

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Cavia porcellus	21	10	4.72	7.42	1.28	130.3	1.70
Isolobodon portoricensis	354	46	21.70	113.49	19.56	1187.2	15.51
Rodentia	35			4.85	0.84	92.4	1.21
Nesophontes edithae	1	1	0.47	0.28	0.05	9.2	0.12
Mammalia UID	357	3	1.42	104.32	17.98	1108.9	14.48
Total Mammalia	768	60	28.30	230.36	39.71	3024.6	39.51
Anas cf. discors	1	1	0.47	0.66	0.11	12.3	0.16
Ardeidae	4	3	1.42	3.55	0.61	50.4	0.66
Columbidae	1	2	0.94	0.53	0.09	10.2	0.13
Fulica sp.	1	1	0.47	0.27	0.05	5.8	0.08
Rallidae	5	1	0.47	0.96	0.17	16.8	0.22
Passeriformes	3	3	1.42	0.18	0.03	4.1	0.05
Aves	39	12	5.66	8.82	1.52	108.2	1.41
Total Aves	54	22	10.38	14.97	2.58	213.5	2.79
Colubridae	15	6	2.83	1.77	0.31	19.6	0.26
Cyclura sp.	17	6	2.83	3.29	0.57	35.2	0.46
Lacertilia	5			0.80	0.14	9.3	0.12
Emydidae	11	6	2.83	12.87	2.22	173.0	2.26
Cheloniidae	16	4	1.89	38.58	6.65	309.6	4.04
Testudines	120	5	2.36	46.94	8.09	343.5	4.49
Reptilia UID	1			0.05	0.01	0.7	0.01
Total Reptilia	185	27	12.74	104.30	17.98	1,252.4	16.36

Table 5. All Vertebrate Taxa from Unmixed Prehistoric Context

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Tetrapoda UID	184			17.62	3.04		
Anguilla rostrata	2	2	0.94	0.11	0.02	3.0	0.04
Gobiomorus dormitor	10	4	1.89	1.67	0.29	34.7	0.45
Balistidae	2	1	0.47	1.26	0.22	26.9	0.35
Calamus sp.	3	3	1.42	1.29	0.22	27.5	0.36
Caranx crysos	1	1	0.47	0.33	0.06	8.1	0.11
Caranx sp.	2	2	0.94	0.97	0.17	21.3	0.28
Carangidae	6	3	1.42	2.85	0.49	56.2	0.73
Centropomus sp.	18	3	1.42	3.96	0.68	75.5	0.99
Diodon sp.	6	4	1.89	25.70	4.43	406.4	5.31
Diodontidae	30	8	3.77	4.49	0.77	84.5	1.10
Centropristis sp.	3	2	0.94	1.61	0.28	33.6	0.44
Mycteroperca sp.	2	2	0.94	1.15	0.20	24.8	0.32
Epinephelus sp.	22	8	3.77	15.83	2.73	262.7	3.43
Serranidae	12	4	1.89	13.72	2.37	231.0	3.02
Haemulidae	3	2	0.94	0.46	0.08	10.9	0.14
Haemulon sp.	6	5	2.36	1.21	0.21	26.0	0.34
Lachnolaimus sp.	3	2	0.94	1.43	0.25	30.2	0.39
Lutjanidae	17	6	2.83	12.04	2.08	205.4	2.68
Lutjanus sp.	14	5	2.36	8.87	1.53	156.0	2.04
Scaridae	32	3	1.42	5.96	1.03	109.1	1.42
Scarus sp.	3	3	1.42	9.18	1.58	160.9	2.10
Sparisoma sp.	47	19	8.96	17.20	2.96	283.1	3.70
Sphyraena sp.	4	2	0.94	0.85	0.15	18.9	0.25
Elops saurus	1	1	0.47	0.07	0.01	2.0	0.03
Thunnus sp.	2	1	0.47	0.20	0.03	5.1	0.07
Osteichthyes UID	250			38.86	6.70	589.6	7.70
Total Osteichthyes	501	95	44.81	171.27	29.52	3,135.7	40.96
Lamniformes	8	6	2.83	2.06	0.36	23.6	0.31
Rajiformes	2	2	0.94	1.12	0.19	10.2	0.13
Total Chondrichthyes	10	8	3.77	3.18	0.55	29.8	0.39
Vertebrata UID	663			38.42	6.62		
TOTAL VERTEBRATA	2,365	212	100.00	580.12	100.00	7,656.0	100.00

The largest samples are from units associated with the batey/midden mound; therefore, the data used for the temporal comparisons are from batey/midden mound contexts. Identified taxa, along with their NISP, MNI, weight, and estimated meat weight from each temporal component (Jácana 2, Jácana 2/4, and Jácana 4) are presented in Tables 6-8 for invertebrates, and Tables 9-11 for vertebrates. Data are combined for batey and non-batey contexts and presented in Tables 12 and 13 for invertebrates and Tables 14 and 15 for vertebrates. In general, the most diverse contexts were ones associated with the batey and from the mixed (Jácana 2/4) temporal component for both vertebrates and invertebrates. Because the vast majority of the site's faunal material was recovered from these contexts, the increased species richness observed is likely due to sampling bias. Mixed components are therefore not included in the temporal comparative analyses. Similarly, batey contexts exhibit higher diversity than the non-batey contexts, possibly reflecting sample size.

Table 6. Invertebrate Data for Jácana 2, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Americardia media	1	1	0.22	1.3	0.04	1.3	0.20
Anadara chemnitii	2	2	0.45	3.1	0.09	2.3	0.36
Anadara floridana	1	1	0.22	5.2	0.15	3.2	0.52
Anadara leinosa floridana	2	2	0.45	5.5	0.16	3.3	0.54
Anadara notibilis	10	8	1.78	70.3	2.09	18.9	3.04
Anadara ovalis	12	8	1.78	16.7	0.50	7.1	1.14
Anadara sp.	16	3	0.67	17.3	0.51	7.3	1.17
Anomalocardia brasiliana	102	52	11.58	54.9	1.63	16.0	2.57
Arca imbricata	8	4	0.89	6.4	0.19	3.7	0.60
Arca zebra	329	132	29.40	641.6	19.09	84.9	13.65
Arcidae	242			148.1	4.41	31.3	5.04
Barbatia candida	1	1	0.22	1.9	0.06	1.6	0.26
Cardiidae	1	1	0.22	0.4	0.01	0.6	0.09
Chama macerophylla	2	2	0.45	42.5	1.26	13.4	2.15
Chamidae	2	2	0.45	4.6	0.14	3.0	0.48
Chamidae	1	1	0.22	0.9	0.03	1.0	0.16
Chione cancellata	4	3	0.67	3.6	0.11	2.5	0.40
Codakia orbicularis	77	16	3.56	78.8	2.34	20.4	3.28
Crassostrea rhizophorae	25	12	2.67	51.1	1.52	15.2	2.44
Lucina pectinatus	1	1	0.22	0.8	0.02	0.9	0.14
Lucinidae	19	1	0.22	16.5	0.49	7.0	1.13
Phacoides pectinatus	10	5	1.11	23.9	0.71	9.1	1.46
Solenidae	3	1	0.22	0.4	0.01	0.6	0.09

Table 6. Invertebrate Data for Jácana 2, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Tellina fausta	33	10	2.23	80.8	2.40	20.8	3.34
Tellinidae	60	4	0.89	80.2	2.39	20.6	3.32
Trachycardium isocardia	3	1	0.22	2.8	0.08	2.1	0.34
Bivalvia UID	135			82.7	2.46	21.1	3.39
Total Bivalvia	1,102	274	61.02	1,442.3	42.91	319.0	51.30
Astraea caelata	2	1	0.22	10.3	0.31	5.9	0.95
Astraea sp.	8	4	0.89	9.6	0.29	5.5	0.89
Astrea caelata	6	1	0.22	6.3	0.19	3.8	0.60
Astrea sp.	1	1	0.22	0.3	0.01	0.2	0.04
Cittarium pica	3	2	0.45	8.5	0.25	5.0	0.80
Littorinidae	1	1	0.22	1.1	0.03	0.8	0.12
Murex sp.	6	3	0.67	14.6	0.43	8.2	1.31
Muricidae	3	2	0.45	12.0	0.36	6.8	1.09
Neritidae	1	1	0.22	0.3	0.01	0.2	0.04
Neritina sp.	1	1	0.22	0.4	0.01	0.3	0.05
Neritina virginea	3	3	0.67	1.0	0.03	0.7	0.11
Nodilittorina tuberculata	1	1	0.22	0.5	0.01	0.4	0.06
Strombidae	74	4	0.89	239.70	7.13	25.9	4.17
Strombus costatus	1	1	0.22	38.4	1.14	5.2	0.83
Strombus gigas	6	2	0.45	32.1	0.96	4.4	0.71
Strombus pugilis	33	26	5.79	780.1	23.21	73.3	11.79
Strombus sp.	111	29	6.46	456.5	13.58	45.7	7.36
Turbinidae	1	1	0.22	0.6	0.02	0.4	0.07
Turritella variegata	163	69	15.37	191.0	5.68	86.8	13.96
Gastropoda UID	41	22	4.90	45.7	1.36	23.3	3.75
Total Gastropoda	466	175	38.98	1,849.0	55.01	302.8	48.70
Mollusca UID	242			69.9	2.08		
TOTAL INVERTEBRATA	1,810	449	100.00	3,361.2	100.00	621.8	100.00

Table 7. Invertebrate Data for Jácana 2/4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	% Meat Weight
Anadara leinosa floridana	6	5	0.37	59.1	0.50	16.8	0.96
Anadara notibilis	37	20	1.48	210.3	1.79	39.8	2.28
Anadara ovalis	11	19	1.41	28.2	0.24	10.1	0.58
Anadara sp.	20	4	0.30	22.5	0.19	8.7	0.50

Table 7. Invertebrate Data for Jácana 2/4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	% Meat Weight
Anomalocardia brasiliana	763	309	22.86	528.2	4.50	74.4	4.27
Arca imbricata	6	4	0.30	8.6	0.07	4.5	0.26
Arca zebra	907	297	21.97	1,673.2	14.26	162.9	9.35
Arca sp.	10	2	0.15	3.4	0.03	2.4	0.14
Arcidae	385	1	0.07	200.2	1.71	38.5	2.21
Barbatia cancellaria	1	1	0.07	3.9	0.03	2.6	0.15
Barbatia candida	1	1	0.07	0.9	0.01	1.0	0.06
Chama macerophylla	5	5	0.37	59.1	0.50	16.8	0.96
Chama sp.	6	6	0.44	2.8	0.02	2.1	0.12
Chamidae	37	10	0.74	27.3	0.23	9.9	0.57
Chione cancellata	2	2	0.15	3.6	0.03	2.5	0.14
Chione intapurpurea	1	1	0.07	4.2	0.04	2.8	0.16
Codakia orbicularis	159	38	2.81	189.6	1.62	37.1	2.13
Crassostrea rhizophorae	53	13	0.96	88.4	0.75	22.1	1.27
Donax denticulatus	1	1	0.07	0.1	0.00	0.2	0.01
Lucinidae	27	3	0.22	20.8	0.18	8.2	0.47
Ostreidae	21	5	0.37	8.6	0.07	4.5	0.26
Phacoides pectinatus	17	11	0.81	58.4	0.50	16.6	0.96
Plicatula gibbosa	1	1	0.07	0.8	0.01	0.9	0.05
Solen obliquus	21	4	0.30	8.4	0.07	4.5	0.26
Solenidae	5	4	0.30	4.6	0.04	3.0	0.17
Tellina fausta	46	17	1.26	312.6	2.66	52.1	2.99
Tellina magna	6	2	0.15	19.1	0.16	7.8	0.45
Tellina sp.	35	1	0.07	47.1	0.40	14.4	0.83
Tellinidae	77	13	0.96	72.8	0.62	19.3	1.11
Bivalvia UID	655	3	0.22	177.8	1.52	35.5	2.04
Total Bivalvia	3,322	803	59.39	3,844.6	32.76	621.9	35.70
Astraea caelata	11	12	0.89	59.0	0.50	29.5	1.69
Astraea sp.	8	6	0.44	14.2	0.12	7.9	0.46
Capulidae	1	1	0.07	1.1	0.01	0.8	0.04
Cassidae	1	1	0.07	30.4	0.26	16.0	0.92
Cassis sp.	3	2	0.15	40.1	0.34	20.6	1.19
Chama macerophylla	1	1	0.07	8.4	0.07	4.9	0.28
Chamidae	15	1	0.07	8.4	0.07	4.9	0.28
Cittarium pica	17	7	0.52	97.4	0.83	46.7	2.68
Murex brevifrons	1	1	0.07	38.6	0.33	19.9	1.14
Murex pomum	1	1	0.07	23.3	0.20	12.5	0.72

Table 7. Invertebrate Data for Jácana 2/4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	% Meat Weight
Murex sp.	11	8	0.59	80.9	0.69	39.4	2.26
Muricinae	28	16	1.18	261.1	2.22	115.7	6.64
Nerita sp.	1	1	0.07	0.1	0.00	0.1	0.00
Neritidae	2	2	0.15	1.0	0.01	0.7	0.04
Neritina sp.	14	10	0.74	2.4	0.02	1.5	0.09
Neritina virginea	7	4	0.30	0.6	0.01	0.4	0.02
Strombus costatus	5	3	0.22	213.6	1.82	23.4	1.35
Strombus gigas	6	3	0.22	52.2	0.44	6.8	0.39
Strombus pugilis	176	133	9.84	3,841.5	32.73	298.1	17.11
Strombus sp.	375	146	10.80	1,522.2	12.97	132.0	7.58
Strombidae	154	44	3.25	720.6	6.14	68.4	3.92
Trochidae	1	1	0.07	2.0	0.02	1.3	0.08
Turbinidae	1			1.1	0.01	0.8	0.04
Turritella variegata	284	134	9.91	321.9	2.74	140.3	8.05
Vasum muricatum	3	2	0.15	69.2	0.59	34.1	1.96
Vermetidae	16			0.4	0.00	0.3	0.02
Gastropoda UID	198	9	0.67	205.7	1.75	92.9	5.33
Total Gastropoda	1,341	549	40.61	7,617.4	64.91	1,120.1	64.30
Mollusca UID	579			273.8	2.33		
TOTAL INVERTEBRATA	5,242	1,352	100.00	11,735.8	100.00	1,742.0	100.00

Table 8. Invertebrate Data for Jácana 4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Anadara floridana	1	1	0.25	14.8	0.84	6.5	1.78
Anadara notabilis	4	3	0.76	18.1	1.03	7.5	2.04
Anadara ovalis	3	3	0.76	8.8	0.50	4.6	1.25
Anomalocardia brasiliana	559	173	43.91	331.6	18.79	54.2	14.75
Arca imbricata	5	4	1.02	7.3	0.41	4.0	1.10
Arca zebra	183	95	24.11	468.50	26.54	68.6	18.66
Arcidae	83			43.1	2.44	13.5	3.68
Chamidae	5	3	0.76	13.2	0.75	6.1	1.65
Chione cancellata	4	3	0.76	5.4	0.31	3.3	0.90
Codakia costata	1	1	0.25	1.9	0.11	1.6	0.44
Codakia orbicularis	84	18	4.57	142.2	8.06	30.5	8.29
Crassostrea rhizophorae	7	4	1.02	7.8	0.44	4.2	1.15

Table 8. Invertebrate Data for Jácana 4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Crepidula aculeata	1	1	0.25	0.3	0.02	0.5	0.13
Isognomon alatus	1	1	0.25	0.7	0.04	0.8	0.22
Lucina pectinatus	14	6	1.52	19.4	1.10	7.9	2.14
Lucinidae	24			8.7	0.49	4.6	1.24
Mytilopsis dominguensis	2	2	0.51	0.1	0.01	0.2	0.06
Phacoides pectinatus	2	2	0.51	13.7	0.78	6.2	1.69
Pliculata gibbosa	2	1	0.25	0.2	0.01	0.4	0.10
Pseudochama radians	1	1	0.25	2.2	0.12	1.8	0.49
Rupellaria typica	3	1	0.25	0.3	0.02	0.5	0.13
Solen obliquus	3	1	0.25	1.1	0.06	1.1	0.30
Solenidae	1	1	0.25	0.3	0.02	0.5	0.13
Tellina fausta	26	11	2.79	110.70	6.27	25.7	6.99
Tellinidae	39	2	0.51	49.90	2.83	15.0	4.07
Bivalvia UID	60			14.0	0.79	6.3	1.71
Total Bivalvia	1,118	338	85.79	1,284.3	72.76	282.0	76.73
Astrea caelata	1	1	0.25	2.1	0.12	1.4	0.37
Cerithiidae	1	1	0.25	0.2	0.01	0.2	0.04
Echininous nodulosus	1	1	0.25	0.8	0.05	0.6	0.15
Murex sp.	1	1	0.25	4.3	0.24	2.6	0.72
Muricidae	7	4	1.02	21.20	1.20	11.5	3.13
Neritina clenchi	2	2	0.51	2.1	0.12	1.4	0.37
Neritina virginea	4	4	1.02	11.4	0.65	6.5	1.77
Neritina sp.	2	2	0.51	1.6	0.09	1.1	0.29
Strombidae	10	3	0.76	24.5	1.39	3.5	0.95
Strombus gigas	1	1	0.25	4.9	0.28	0.8	0.23
Strombus pugilis	13	10	2.54	195.60	11.08	21.7	5.90
Strombus sp.	45	12	3.05	138.2	7.83	16.0	4.35
Turritella variegata	14	10	2.54	16.7	0.95	9.2	2.51
Gastropoda UID	27	4	1.02	16.5	0.93	9.1	2.48
Total Gastropoda	129	56	14.21	440.1	24.94	85.5	23.27
Mollusca UID	5			40.7	2.31		
TOTAL INVERTEBRATA	1,252	394	100.00	1,765.1	100.00	367.5	100.00

Table 9. Vertebrate Data for Jácana 2, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Cavia porcellus	4	2	9.09	1.45	2.58	34.7	3.56
Isolobodon portoricensis	40	7	31.82	18.12	32.20	268.6	27.57
Rodentia	5			0.64	1.14	17.9	1.84
N*esophontes edithae*	1	1	4.55	0.28	0.50	9.2	0.94
Mammalia UID	23			10.70	19.01	175.3	17.99
Total Mammalia	72	9	40.91	30.91	54.92	496.5	50.96
Anas cf. discors	1	1	4.55	0.66	1.17	12.3	1.26
Aves	7	2	9.09	0.57	1.01	10.8	1.11
Total Aves	8	3	13.64	1.23	2.19	23.1	2.37
Colubridae	1	1	4.55	0.10	0.18	1.3	0.14
Testudines	8	1	4.55	2.56	4.55	73.5	7.55
Total Reptilia	9	2	9.09	2.66	4.73	74.8	7.68
Calamus sp.	1	1	4.55	0.10	0.18	2.8	0.28
Diodon sp.	1	1	4.55	4.14	7.36	78.6	8.07
Diodontidae	2	1	4.55	0.31	0.55	7.6	0.78
Carangidae	1	1	4.55	0.54	0.96	12.6	1.29
Epinephelus sp.	1	1	4.55	0.18	0.32	4.7	0.48
Mycteroperca sp.	1	1	4.55	0.32	0.57	7.8	0.81
Serranidae	5	1	4.55	4.80	8.53	89.8	9.21
Scaridae	3			0.46	0.82	10.9	1.12
Sparisoma sp.	6	1	4.55	2.53	4.50	50.4	5.18
Osteichthyes UID	44			6.11	10.86	111.5	11.45
Total Osteichthyes	65	8	36.36	19.49	34.63	376.7	38.66
Lamniformes	2			0.48	0.85	3.2	0.32
Vertebrata UID	47			1.51	2.68		
TOTAL VERTEBRATA	203	22	100.00	56.28	100.00	974.3	100.00

Table 10. Vertebrate Data for Jácana 2/4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	% Meat Weight
Cavia porcellus	16	7	5.11	5.14	1.30	96.8	2.10
Isolobodon portoricensis	246	25	18.25	74.26	18.80	842.0	18.28
Rodentia	24			3.98	1.01	78.7	1.71
Nesophontes edithae	1	1	0.73	0.28	0.07	9.2	0.20
Mammalia UID	270	3	2.19	80.71	20.43	900.8	19.56
Total Mammalia	557	36	26.28	164.37	41.60	1,927.4	41.85

Table 10. Vertebrate Data for Jácana 2/4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	% Meat Weight
Ardeidae	1	1	0.73	0.80	0.20	14.4	0.31
Columbidae	1	2	1.46	0.53	0.13	10.2	0.22
Fulica sp.	1		0.00	0.27	0.07	5.8	0.13
Rallidae	5	1	0.73	0.96	0.24	16.8	0.36
Passeriformes	3	3	2.19	0.18	0.05	4.1	0.09
Aves	21	4	2.92	3.55	0.90	50.4	1.09
Total Aves	32	11	8.03	6.29	1.59	101.7	2.21
Cyclura sp.	8	4	2.92	1.11	0.28	12.7	0.27
Lacertilia	2			0.28	0.07	3.5	0.08
Colubridae	12	5	3.65	1.50	0.38	16.8	0.36
Emydidae	8	4	2.92	7.81	1.98	79.3	1.72
Cheloniidae	4	3	2.19	25.04	6.34	246.2	5.35
Testudines	64	4	2.92	34.08	8.63	289.9	6.29
Reptilia UID	1			0.05	0.01	0.7	0.01
Total Reptilia	99	20	14.60	69.87	17.68	649.0	14.09
Tetrapoda UID	141			13.56	3.43		
Anguilla rostrata	2	2	1.46	0.11	0.03	3.0	0.07
Gobiomorus dormitor	8	3	2.19	1.20	0.30	25.8	0.56
Balistidae	2	1	0.73	1.26	0.32	26.9	0.58
Calamus sp.	2	2	1.46	1.19	0.30	25.6	0.56
Caranx crysos	1	1	0.73	0.33	0.08	8.1	0.18
Caranx sp.	2	2	1.46	0.97	0.25	21.3	0.46
Carangidae	3	1	0.73	1.27	0.32	27.1	0.59
Centropomus sp.	15	2	1.46	2.84	0.72	56.0	1.22
*Diodon*sp.	2	2	1.46	17.02	4.31	280.5	6.09
Diodontidae	14	5	3.65	1.69	0.43	35.1	0.76
Epinephelus sp.	14	5	3.65	12.78	3.23	216.7	4.71
Mycteroperca sp.	1	1	0.73	0.83	0.21	18.5	0.40
Serranidae	4			0.47	0.12	11.1	0.24
Haemulon sp.	5	4	2.92	1.08	0.27	23.4	0.51
Haemulidae	3	2	1.46	0.46	0.12	10.9	0.24
Lutjanus sp.	14	5	3.65	8.87	2.25	156.0	3.39
Lutjanidae	11	4	2.92	9.18	2.32	160.9	3.49
Lachnolaimus sp.	3	2	1.46	1.43	0.36	30.2	0.66
Scarus sp.	3	3	2.19	9.18	2.32	160.9	3.49
Sparisoma sp.	32	14	10.22	10.02	2.54	174.1	3.78
Scaridae	20			2.85	0.72	56.2	1.22

Table 10. Vertebrate Data for Jácana 2/4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	% Meat Weight
Sphyraena sp.	4	2	1.46	0.85	0.22	18.9	0.41
Osteichthyes UID	117			22.06	5.58	354.2	7.69
Total Osteichthyes	282	63	45.99	107.94	27.32	1,901.2	41.28
Lamniformes	6	5	3.65	1.58	0.40	16.4	0.36
Rajiformes	2	2	1.46	1.12	0.28	10.2	0.22
Total Chondrichthyes	8	7	5.11	2.70	0.68	26.6	0.58
Vertebrata UID	450			30.37	7.69		
TOTAL VERTEBRATA	1,569	137	100.00	395.10	100.00	4,605.9	100.00

Table 11. Vertebrate Data for Jácana 4, Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Cavia porcellus	1	1	4.76	0.83	1.49	22.1	2.18
Isolobodon portoricensis	26	6	28.57	9.30	16.72	156.5	15.47
Rodentia	6			0.23	0.41	7.8	0.77
Mammalia UID	51			10.65	19.15	174.6	17.26
Total Mammalia	84	7	33.33	21.01	37.77	361.0	35.68
Aves	1	1	4.76	0.11	0.20	2.7	0.27
Colubridae	1			0.11	0.20	1.4	0.14
Emydidae	3	2	9.52	5.06	9.10	105.5	10.43
Testudines	23			5.20	9.35	107.0	10.58
Total Reptilia	27	2	9.52	10.37	18.64	214.0	21.15
Tetrapoda UID	28			2.15	3.87		
Gobiomorus dormitor	2	1	4.76	0.47	0.85	11.1	1.10
Diodon sp.	3	1	4.76	4.54	8.16	85.4	8.44
Diodontidae	3	1	4.76	0.63	1.13	14.4	1.43
Carangidae	1			0.28	0.50	7.0	0.69
Centropristis sp.	3	2	9.52	1.61	2.89	33.6	3.32
Serranidae	2	2	9.52	6.97	12.53	125.6	12.41
Lutjanidae	2	1	4.76	0.52	0.93	12.1	1.20
Haemulon sp.	1	1	4.76	0.13	0.23	3.5	0.34
Sparisoma sp.	5	3	14.29	2.56	4.60	51.0	5.04
Osteichthyes UID	33			5.00	8.99	93.1	9.20
Total Osteichthyes	55	12	57.14	22.71	40.83	436.8	43.17
Vertebrata UID	36			1.53	2.75		
TOTAL VERTEBRATA	231	21	100.00	55.62	100.00	1,011.8	100.00

Table 12. Invertebrate Data for Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Americardia media	1	1	0.05	1.3	0.01	1.3	0.05
Anadara chemnitii	2	2	0.09	3.1	0.02	2.3	0.08
Anadara floridana	2	2	0.09	20.0	0.12	8.0	0.29
Anadara leinosa floridana	8	7	0.32	64.6	0.38	17.8	0.65
Anadara notibilis	51	31	1.41	298.7	1.77	50.5	1.85
Anadara ovalis	26	30	1.37	53.7	0.32	15.7	0.58
Anadara sp.	36	7	0.32	39.8	0.24	12.8	0.47
Anomalocardia brasiliana	1,424	534	24.33	914.7	5.42	108.1	3.96
Arca imbricata	19	12	0.55	22.3	0.13	8.6	0.32
Arca sp.	10	2	0.09	3.4	0.02	2.4	0.09
Arca zebra	1,419	524	23.87	2,783.30	16.51	230.3	8.43
Arcidae	710	1	0.05	391.4	2.32	60.7	2.22
Barbatia cancellaria	1	1	0.05	3.9	0.02	2.6	0.10
Barbatia candida	2	2	0.09	2.8	0.02	2.1	0.08
Bivalvia UID	850	3	0.14	274.5	1.63	47.7	1.75
Cardiidae	1	1	0.05	0.4	0.00	0.6	0.02
Chama macerophylla	7	7	0.32	101.6	0.60	24.2	0.89
Chama sp.	6	6	0.27	2.8	0.02	2.1	0.08
Chamidae	45	16	0.73	46.0	0.27	14.2	0.52
Chione cancellata	10	8	0.36	12.6	0.07	5.9	0.21
Chione intapurpurea	1	1	0.05	4.2	0.02	2.8	0.10
Codakia costata	1	1	0.05	1.9	0.01	1.6	0.06
Codakia orbicularis	320	72	3.28	410.6	2.44	62.7	2.29
Crassostrea rhizophorae	85	29	1.32	147.3	0.87	31.2	1.14
Crepidula aculeata	1	1	0.05	0.3	0.00	0.5	0.02
Donax denticulatus	1	1	0.05	0.1	0.00	0.2	0.01
Isognomon alatus	1	1	0.05	0.7	0.00	0.8	0.03
Lucina pectinatus	15	7	0.32	20.2	0.12	8.1	0.30
Lucinidae	70	4	0.18	46.0	0.27	14.1	0.52
Mytilopsis dominguensis	2	2	0.09	0.1	0.00	0.2	0.01
Ostreidae	21	5	0.23	8.6	0.05	4.5	0.17
Phacoides pectinatus	29	18	0.82	96.0	0.57	23.3	0.85
Pliculata gibbosa	3	2	0.09	1.0	0.01	1.0	0.04
Pseudochama radians	1	1	0.05	2.2	0.01	1.8	0.07
Rupellaria typica	3	1	0.05	0.3	0.00	0.5	0.02

Table 12. Invertebrate Data for Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Solen obliquus	24	5	0.23	9.5	0.06	4.8	0.18
Solenidae	9	6	0.27	5.3	0.03	3.3	0.12
Tellina fausta	105	38	1.73	504.10	2.99	72.1	2.64
Tellina magna	6	2	0.09	19.1	0.11	7.8	0.28
Tellina sp.	35	1	0.05	47.1	0.28	14.4	0.53
Tellinidae	176	19	0.87	202.90	1.20	38.8	1.42
Trachycardium isocardia	3	1	0.05	2.8	0.02	2.1	0.08
Total Bivalvia	5,542	1,415	64.46	6,571.2	38.97	1,222.9	44.77
Astraea caelata	20	15	0.68	77.7	0.46	37.9	1.39
Astraea sp.	17	11	0.50	24.1	0.14	12.9	0.47
Capulidae	1	1	0.05	1.1	0.01	0.8	0.03
Cassidae	1	1	0.05	30.4	0.18	16.0	0.59
Cassis sp.	3	2	0.09	40.1	0.24	20.6	0.76
Cerithiidae	1	1	0.05	0.2	0.00	0.2	0.01
Chama macerophylla	1	1	0.05	8.4	0.05	4.9	0.18
Chamidae	15	1	0.05	8.4	0.05	4.9	0.18
Cittarium pica	20	9	0.41	105.9	0.63	50.4	1.85
Echininous nodulosus	1	1	0.05	0.8	0.00	0.6	0.02
Littorinidae	1	1	0.05	1.1	0.01	0.8	0.03
Murex brevifrons	1	1	0.05	38.6	0.23	19.9	0.73
Murex pomum	1	1	0.05	23.3	0.14	12.5	0.46
Murex sp.	18	12	0.55	99.8	0.59	47.8	1.75
Muricinae	38	22	1.00	294.3	1.75	129.2	4.73
Nerita sp.	1	1	0.05	0.1	0.00	0.1	0.00
Neritidae	3	3	0.14	1.3	0.01	0.9	0.03
Neritina clenchi	2	2	0.09	2.1	0.01	1.4	0.05
Neritina sp.	17	13	0.59	4.4	0.03	2.7	0.10
Neritina virginea	14	11	0.50	13.0	0.08	7.3	0.27
Nodilittorina tuberculata	1	1	0.05	0.5	0.00	0.4	0.01
Strombus costatus	6	4	0.18	252.0	1.49	27.1	0.99
Strombus gigas	13	6	0.27	89.2	0.53	10.9	0.40
Strombus pugilis	222	169	7.70	4,817.20	28.57	363.8	13.32
Strombus sp.	531	187	8.52	2,116.9	12.55	176.4	6.46
Strombidae	238	51	2.32	984.8	5.84	90.0	3.29
Trochidae	1	1	0.05	2.0	0.01	1.3	0.05
Turbinidae	2	1	0.05	1.7	0.01	1.1	0.04
Turritella variegata	461	213	9.70	529.6	3.14	221.8	8.12

Table 12. Invertebrate Data for Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Vasum muricatum	3	2	0.09	69.2	0.41	34.1	1.25
Vermetidae	16	1	0.05	0.4	0.00	0.3	0.01
Gastropoda UID	266	35	1.59	267.9	1.59	118.5	4.34
Total Gastropoda	1,936	780	35.54	9,906.5	58.75	1,508.4	55.23
Mollusca UID	826			384.4	2.28		
TOTAL INVERTEBRATA	8,304	2,195	100.00	16,862.1	100.00	2,731.3	100.00

Table 13. Invertebrate Data for Non-Batey and Non-Midden Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight (g)	% Meat Weight
Anadara brasiliana	1	1	0.74	10.4	1.35	5.1	2.20
Anadara ovalis	1	1	0.74	4.1	0.53	2.7	1.17
Anadara sp.	12	4	2.94	24.2	3.14	9.1	3.91
Anomalocardia brasiliana	102	37	27.21	42.2	5.47	13.3	5.71
Arca sp.	3	1	0.74	2.8	0.36	2.1	0.90
Arca zebra	80	33	24.26	136.8	17.75	29.7	12.71
Arcidae	6	1	0.74	18.6	2.41	7.6	3.27
Astraea sp.	2	2	1.47	3.0	0.39	2.2	0.95
Chione cancellata	1	1	0.74	0.6	0.08	0.7	0.32
Codakia orbicularis	4	4	2.94	8.4	1.09	4.5	1.91
Crassostrea rhizophorae	27	5	3.68	29.0	3.76	10.3	4.43
Lucina pectinata	8	4	2.94	25.0	3.24	9.3	4.00
Lucinidae	1			1.3	0.17	1.3	0.54
Phacoides pectinatus	2	1	0.74	4.8	0.62	3.0	1.30
Bivalvia UID	62			12.4	1.61	5.8	2.48
Total Bivalvia	402	96	70.59	358.2	46.47	115.6	49.49
Astraea caelata	1	1	0.74	53.7	6.97	27.0	11.56
Cittarium pica	28	1	0.74	22.2	2.88	8.6	3.69
Echininus nodulosus	1	1	0.74	0.9	0.12	0.6	0.27
Modulus modulus	1	1	0.74	0.7	0.09	0.5	0.21
Murex sp.	1	1	0.74	10.3	1.34	5.9	2.53
Muricidae	1	1	0.74	45.8	5.94	23.3	9.99
Neritina virginea	1	1	0.74	0.4	0.05	0.3	0.13
Strombus pugilis	2	2	1.47	3.4	0.44	0.6	0.26
Strombus sp.	24	9	6.62	101.3	13.14	12.2	5.21

Table 13. Invertebrate Data for Non-Batey and Non-Midden Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight (g)	% Meat Weight
Turbininae	2	2	1.47	3.5	0.45	2.2	0.94
Turritella variegata	13	12	8.82	20.1	2.61	10.9	4.68
Gastropoda UID	31			51.1	6.63	25.8	11.05
Total Gastropoda	102	40	29.41	392.5	50.92	118.0	50.51
Mollusca UID	48			20.1	2.61		
TOTAL INVERTEBRATA	583	136	100.00	770.8	100.00	233.6	100.00

Table 14. Vertebrate Data for Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Cavia porcellus	21	10	5.43	7.42	1.45	130.3	1.98
Isolobodon portoricensis	312	38	20.65	101.68	19.91	1086.1	16.47
Mammalia UID	344	3	1.63	102.06	19.98	1,089.4	16.52
Nesophontes edithae	1	1	0.54	0.28	0.05	9.2	0.14
Rodentia	35			4.85	0.95	92.4	1.40
Total Mammalia	713	52	28.26	216.29	42.35	2,784.9	42.23
Anas cf. discors	1	1	0.54	0.66	0.13	12.3	0.19
Ardeidae	1	1	0.54	0.80	0.16	14.4	0.22
Columbidae	1	2	1.09	0.53	0.10	10.2	0.15
Fulica sp.	1	1	0.54	0.27	0.05	5.8	0.09
Passeriformes	3	3	1.63	0.18	0.04	4.1	0.06
Rallidae	5	1	0.54	0.96	0.19	16.8	0.25
Aves	31	9	4.89	5.69	1.11	74.9	1.14
Total Aves	43	17	9.24	9.09	1.78	127.5	1.93
Colubridae	14	6	3.26	1.71	0.33	19.0	0.29
Cyclura sp.	8	4	2.17	1.11	0.22	12.7	0.19
Lacertilia	2			0.28	0.05	3.5	0.05
Emydidae	11	6	3.26	12.87	2.52	173.0	2.62
Cheloniidae	4	3	1.63	25.04	4.90	246.2	3.73
Testudines	95	5	2.72	41.84	8.19	323.2	4.90
Reptilia UID	1			0.05	0.01	0.7	0.01
Total Reptilia	135	24	13.04	82.90	16.23	937.8	14.22
Tetrapoda UID	169			15.71	3.08		
Anguilla rostrata	2	2	1.09	0.11	0.02	3.0	0.05

Table 14. Vertebrate Data for Batey and Midden Mound Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Balistidae	2	1	0.54	1.26	0.25	26.9	0.41
Calamus sp.	3	3	1.63	1.29	0.25	27.5	0.42
Carangidae	5	2	1.09	2.09	0.41	42.5	0.64
Caranx crysos	1	1	0.54	0.33	0.06	8.1	0.12
Caranx sp.	2	2	1.09	0.97	0.19	21.3	0.32
Centropomus sp.	15	2	1.09	2.84	0.56	56.0	0.85
Centropristis sp.	3	2	1.09	1.61	0.32	33.6	0.51
Diodon sp.	6	4	2.17	25.70	5.03	406.4	6.16
Diodontidae	19	7	3.80	2.63	0.51	52.2	0.79
Epinephelus sp.	15	6	3.26	12.96	2.54	219.5	3.33
Gobiomorus dormitor	10	4	2.17	1.67	0.33	34.7	0.53
Haemulidae	3	2	1.09	0.46	0.09	10.9	0.16
Haemulon sp.	6	5	2.72	1.21	0.24	26.0	0.39
Lachnolaimus sp.	3	2	1.09	1.43	0.28	30.2	0.46
Lutjanidae	13	5	2.72	9.70	1.90	169.1	2.56
Lutjanus sp.	14	5	2.72	8.87	1.74	156.0	2.37
Mycteroperca sp.	2	2	1.09	1.15	0.23	24.8	0.38
Scaridae	23			3.31	0.65	64.2	0.97
Scarus sp.	3	3	1.63	9.18	1.80	160.9	2.44
Serranidae	11	3	1.63	12.24	2.40	208.5	3.16
Sparisoma sp.	43	18	9.78	15.11	2.96	252.0	3.82
Sphyraena sp.	4	2	1.09	0.85	0.17	18.9	0.29
Osteichthyes UID	194			33.17	6.49	511.3	7.75
Total Osteichthyes	402	83	45.11	150.14	29.40	2,714.7	41.16
Lamniformes	8	6	3.26	2.06	0.40	23.6	0.36
Rajiformes	2	2	1.09	1.12	0.22	10.2	0.15
Total Chondrichthyes	10	8	4.35	3.18	0.62	29.8	0.45
Vertebrata UID	533			33.41	6.54		
TOTAL VERTEBRATA	2,005	184	100.00	510.72	100.00	6,594.7	100.00

Table 15. Vertebrate Data for Non-Batey and Non-Midden Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Isolobodon portoricensis	42	8	25.00	11.81	17.02	189.9	17.89
Mammalia UID	13			2.26	3.26	49.8	4.69
Total Mammalia	55	8	25.00	14.07	20.27	239.7	22.59

Table 15. Vertebrate Data for Non-Batey and Non-Midden Contexts

Taxon	NISP	MNI	%MNI	Weight (g)	%Weight	Meat Weight	%Meat Weight
Ardeidae	3	2	6.25	2.75	3.96	40.6	3.83
Aves	8	3	9.38	3.13	4.51	45.3	4.27
Total Aves	11	5	15.63	5.88	8.47	86.0	8.10
Cyclura sp.	9	2	6.25	2.18	3.14	23.9	2.25
Lacertilia	3			0.52	0.75	6.2	0.59
Colubridae	1	1	3.13	0.06	0.09	0.8	0.08
Cheloniidae	12	4	12.50	13.54	19.51	177.7	16.75
Testudines	25			5.10	7.35	105.9	9.98
Total Reptilia	50	7	21.88	21.40	30.84	314.6	29.64
Tetrapoda UID	15			1.91	2.75		
Centropomus sp.	3	1	3.13	1.12	1.61	24.2	2.28
Diodontidae	11	1	3.13	1.86	2.68	38.2	3.60
Elops saurus	1	1	3.13	0.07	0.10	2.0	0.19
Epinephelus sp.	7	2	6.25	2.87	4.14	56.5	5.32
Serranidae	1	1	3.13	1.48	2.13	31.1	2.93
Carangidae	1	1	3.13	0.76	1.10	17.1	1.61
Lutjanidae	4	1	3.13	2.34	3.37	47.0	4.43
Sparisoma sp.	4	1	3.13	2.09	3.01	42.5	4.00
Scaridae	9	3	9.38	2.65	3.82	52.6	4.96
Thunnus sp.	2	1	3.13	0.20	0.29	5.1	0.48
Osteichthyes UID	56			5.69	8.20	104.6	9.86
Total Osteichthyes	99	12	37.50	21.13	30.45	421.0	39.67
Vertebrata UID	130			5.01	7.22		
TOTAL VERTEBRATA	360	32	100.00	69.40	100.00	1061.3	100.00

IDENTIFIED INVERTEBRATE TAXA

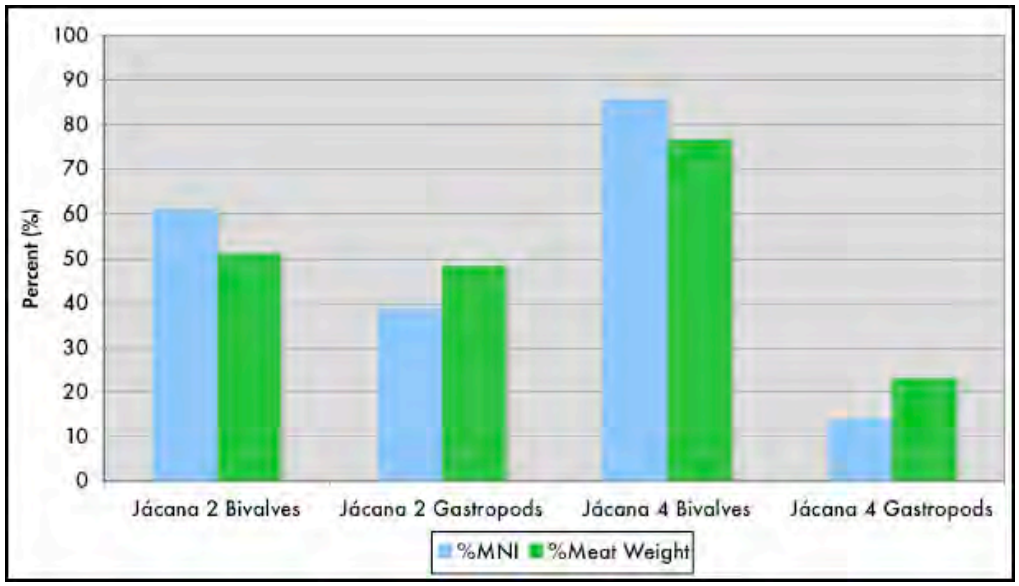
The invertebrate assemblage consisted of 8,770 specimens with an MNI of 2,323 from 75 taxa. Gastropods comprise 2,014 specimens with an MNI of 812 from 32 taxa. Invertebrates comprise 5,882 specimens with an MNI of 1,511 from 43 taxa.

The most common invertebrates were the West Indian pointed venus (*Anomalocardia brasiliana*) and the turkey wing arc (*Arca zebra*), both bivalves. These two species comprise almost 50% (MNI) of the invertebrate assemblage. The turkey wing ark prefers a rocky shallow-water habitat while the West Indian pointed venus lives partially buried in muddy or sandy bottoms and is common in mangroves (Monti et al. 1990; Warmke and Abbot 1961). The most

common gastropods were conchs (*Strombus* spp.) including the West Indian fighting conch (*Strombus pugilis*), the milk conch (*Strombus costatus*) and the queen conch (*Strombus gigas*). Together, conchs are about 16% of total invertebrate MNI. Conchs are most common on grassy sea beds in shallow, near-shore waters (Warmke and Abbot 1961). Another common gastropod is the variegate turret snail (*Turritella variegata*), comprising about 10% of the total MNI. These small snails inhabit moderately shallow bays (Abbott and Morris 1995).

A comparison of the relative abundances of mollusk remains during the Jácana 2 and Jácana 4 occupations (Graph 1) indicates that the use of bivalves and gastropods were more even during the earlier component. A comparison of the MNI and meat weight contributions through time shows that the use of gastropods became less prevalent during Jácana 4. Values of estimated meat weight contribution shows that the mollusk food contribution of gastropods drops from almost 50% during Jácana 2, to less than 25% during Jácana 4. A total of 19 gastropod taxa were identified from the Jácana 2 material, while only 13 taxa were identified from the Jácana 4 material. Gastropod data from Tables 6 and 8 indicate a greater importance of conchs (*Strombus* spp.) as well as variegate turret snail (*Turritella variegate*).

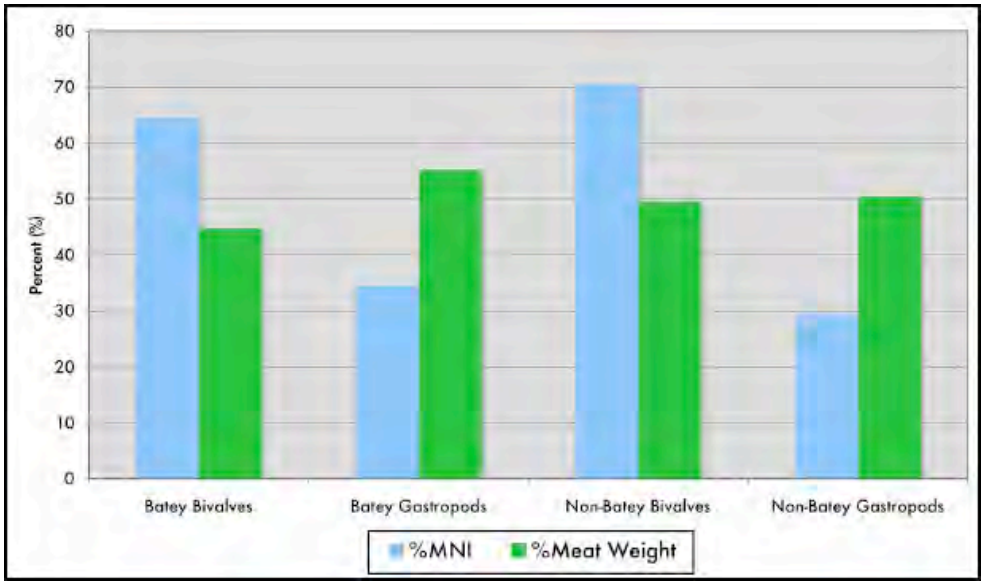
Graph 1. A Comparison of Bivalve and Gastropod Distribution by %MNI and %Meat Weight in Jácana 2 and Jácana 4 Temporal Components



The comparison of batey/midden mound contexts with other contexts (Graph 2), demonstrates disparate results when MNI and Meat Weight is considered. The MNI indicates that bivalves were more common in both batey/midden mound and other contexts. The meat weight contribution values, however, show that the opposite is true in both cases. Mollusks from batey associated contexts were 70 percent bivalves by MNI. However, estimated meat weight indicate

that the contribution of gastropods and bivalves were more equal, with gastropods (55%) contributing slightly more than bivalves. When comparing the two contexts, gastropod use was more prevalent at the batey than elsewhere on the site. Non-batey contexts yielded 10 identified gastropod taxa, while 30 taxa were identified from the material from near the batey. As already mentioned, sample size likely contributed to this disparity. However, an examination of the data in Table 12 indicates the presence of some uncommon gastropod species in the batey contexts including the Caribbean vase (*Vasum muricatum*), milk conch (*Strombus costatus*), and the helmet (*Cassis* sp.).

Graph 2. A Comparison of Bivalve and Gastropod Distribution by %MNI and %Meat Weight in Batey/Midden Mound and Other Spatial Contexts



At least 723 mollusk specimens exhibit signs of burning. Evidence of burning or heating are not always easy to detect since shell is often stained by soil during deposition. Of the 723 burned specimens, only 42 (5%) were from non-batey contexts.

Some of the larger bivalves, such as the tiger lucine (*Codakia orbicularis*) and Faust's tellin (*Telina fausta*), show signs of use-wear on the ventral margins of larger valves. This characteristic use pattern is characterized by areas of flaking in the direction of the exterior surface. At least 21 specimens exhibit this pattern. All are from Trench 19 in the midden mound near adjacent to the batey. Similarly, three coral (Anthozoa) fragments have worn or flattened surfaces, indicating they may have been used as abrading tools. One coral fragment has a groove worn into the surface. Worn coral fragments are also from Trench 19.

Some larger gastropods, such as conchs (Strombidae), and murexes (Muricidae) show possible cuts, smoothing, or drilling—but this was extremely rare. It is difficult to determine whether these were man-made modifications. Only six specimens indicated these modifications, and they were only designated as such when natural processes such as erosion, boring sponge damage, and damage inflicted during excavation could be ruled out.

IDENTIFIED VERTEBRATE TAXA

The vertebrate assemblage consisted of 2,365 specimens with an MNI of 212 from 43 taxa. Mammals comprise 768 specimens with an MNI of 60 from four taxa. Birds comprise 54 specimens with an MNI of 22 from six taxa. Reptiles comprise 185 specimens with an MNI of 27 from six taxa. Bony fish comprise 501 specimens with an MNI of 95 from 25 taxa. Cartilaginous fish comprise 10 specimens with an MNI of eight from two taxa.

Table 5 includes the vertebrate taxa identified from all analyzed contexts, along with their preferred habitats. The most common mammal identified from undisturbed prehistoric contexts was the West Indian hutia (*Isolobodon portoricensis*). The West Indian hutia is a small rabbit-sized tropical rodent that is now extinct. It is endemic to the island of Hispaniola and is thought to have been transported to Puerto Rico by humans (Newsom and Wing 2004). As opportunistic feeders, they would have easily adapted to the natural and man-made habitats around PO-29 (Morgan and Woods 1986; Woods 1989). Hutia (NISP=354) were common throughout the site and in all time periods with a total MNI of 46 individuals. Also present was the guinea pig (*Cavia porcellus*). Guinea pigs are a true domesticate endemic to the Central Andes in South America (Newsom and Wing 2004). They most certainly were transported to the site by people. Guinea pig remains were recovered from both Jácana 2 and Jácana 4 contexts with the majority (MNI=7) recovered from mixed (Jácana 2/4) contexts. All guinea pig remains were recovered from batey/midden mound contexts. Specimens identified as Rodentia are most likely either hutia or guinea pig.

Other mammals of note include the Puerto Rican shrew (*Nesophontes edithae*), a small extinct insectivore. It is represented in the faunal assemblage by only one specimen, a nearly complete mandible with distinct teeth. It was recovered from the Midden Mound trench in a deep deposit dated to the Jácana 2 temporal component. Manataee (*Trichechus manatus*) was also identified from one fragment of rib. The manatee rib was recovered from Scrape F, which is a non-batey context; however, it is unfortunately from a general collection and has no other contextual information. The majority of specimens identified as Mammalia were small to medium in size and likely represent large hutia, or another medium-sized mammal that was not positively identified in the assemblage, such as dog. Large mammal remains were somewhat rare. The only

large mammal remains were from historic-period domesticates. Large mammal remains from undisturbed prehistoric contexts could be sea mammals, including manatee—or possibly a Pinniped or Cetacean. It is possible that large mammal remains could be human. However, large unidentifiable mammal remains in association with human remains were not included in the analytical data.

Birds include six taxa including one species of duck, probably a blue-winged teal (*Anas* cf. *discors*), members of the heron family (Ardeidae), rails (Rallidae) including a coot (*Fulica* sp.), pigeons or doves (*Columba* sp.), as well as small songbirds (Passeriformes). The blue-winged teal, coot, and herons would have utilized the shore and mangrove habitats near the coast. Pigeons, doves, and song birds would have been found in local upland forest habitats near PO-29. Rails can be found in either upland forests or in water environments, depending upon the species (Raffaele 1989).

The blue-winged teal was identified from a single element in Trench 19 associated with the Jácana 2 time period. The heron remains were all identified from the same skeletal element, the tibiotarsus and consisted primarily of the long shaft. A total of four specimens were identified, three of which were from the non-batey contexts of FX-F (n=2) and FX-T12 (n=1). The doves/pigeons, rails, and coot were identified from specimens recovered from mixed temporal contexts in Trench 19. Songbirds remains are associated with both batey and non-batey contexts.

Reptiles are relatively rare and consist of lizards, including an endemic iquana (*Cyclura* sp.), non-poisonous snakes (Colubridae), and turtles (Testudines) including sea turtles (Cheloniidae) and fresh water Emydid turtles (Emydidae). All reptiles would have been common in the habitats of the environment around PO-29 with the exception of sea turtles, which could be captured on or near shore. Sea turtles are more common in non-batey contexts.

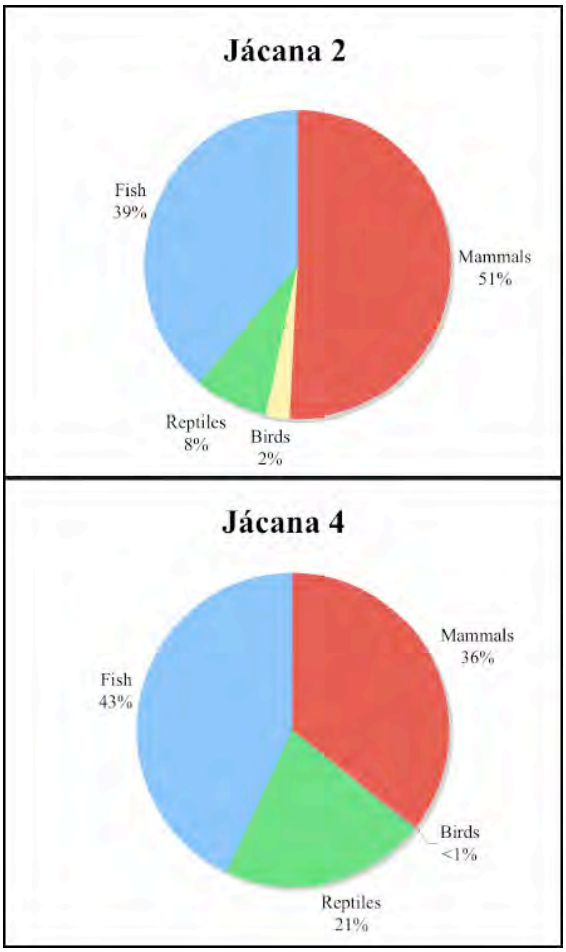
Fish remains were common and diverse. Cartilaginous fishes, including shark (Lamniformes) and ray (Rajiformes) were present in the assemblage but were rare. At least six sharks and two rays are represented. All were recovered from contexts associated with the batey. At least two of the sharks were recovered from the Jácana 2 component. No cartilaginous fishes were recovered from contexts identified as purely Jácana 4.

A total of 25 bony fish taxa (MNI=95) were identified from 501 specimens. The most common bony fish were reef fishes, including parrotfish (Scaridae, *Scarus* sp., *Sparisoma* sp.), groupers (Epinephelus sp., Mycteroperca sp.), snappers (Lutjanidae), and pufferfish/porcupine fish (Diodontidae, *Diodon* sp.). Inshore species include ladyfish (*Elops saurus*), snook (*Centropomus* sp.), porgy (*Calamus* sp.) and shad/herring (Clupeidae). The Portugues River was

also a source of fish. Both big mouth sleepers (*Gobiomorus dormitor*), and the fresh water eel (*Anguilla rostrata*) are present. Fish that utilize pelagic, deep water habitats are rare and include tuna (*Thunnus* sp.) and barracuda (*Sphyraena* sp.). Barracuda may not be truly pelagic species and are often observed in inshore and reef environments as well (Nelson 1984). Marine fishes are common in all contexts; however, riverine species were not identified from the Jácana 2 component.

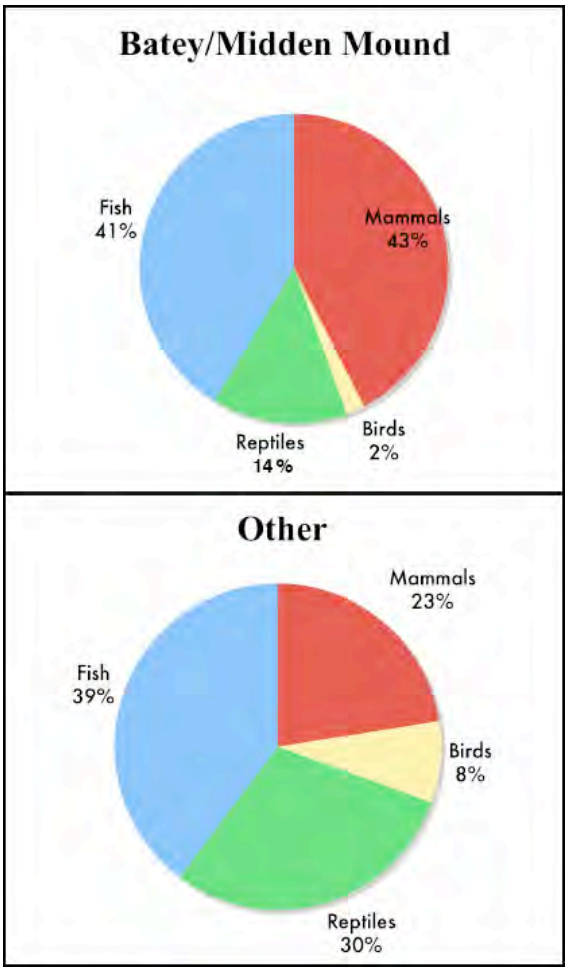
A comparison of the class distribution in biomass of vertebrate remains from the Jácana 2 and Jácana 4 temporal components is presented in Graph 3. It includes only the contexts designated as purely Jácana 2 or 4 and excludes mixed contexts. The figure indicates that the contribution of fish to the overall diet does not appear to change over time, contributing around 40% of biomass during both time periods. However, the use of mammals decreases significantly from 51 percent of diet contribution to 36 percent. At the same time, reptile use increases from around 8 percent to 21 percent. Bird use also decreases during Jácana 4.

Graph 3. A Comparison of Minimum Meat Weight Contributions of Identified Vertebrate Classes from the Jácana 2 and Jácana 4 Temporal Components



A comparison of spatial contexts is presented in Graph 4. Relative biomass of each class of vertebrate is shown. As with the temporal comparison, the contribution of fish in each context is similarly around 40 percent. The however, the contribution of mammals in batey.midden mound contexts (43%) is almost double that of other contexts (22%). Conversely, the use of reptiles is more than twice as common in other contexts (30%) as it is in batey/midden mound contexts (14%).

Graph 4. A Comparison of Minimum Meat Weight Contributions of Identified Vertebrate Classes from Batey and Non-Batey Contexts



Modifications to bone were not common. At least 132 specimens showed signs of burning. Burned bone was present is all contexts. There were 43 specimens that exhibited cuts or other signs of butchery from all contexts. The manatee rib from Scrape F had cuts on the lateral aspect of the rib head. In association with the manatee rib were three other fragments of large unidentified mammal bone that appeared to be cut and polished.

V. DISCUSSION

HABITAT EXPLOITATION

The faunal data from PO-29 suggests that the inhabitants of the site enjoyed a diversity of animal resources from a variety of habitats (Table 3). The local upland forest and riverine habitats supplied terrestrial fauna. The West Indian hutia (*Isolobodon portoricensis*) was the most common mammal in all contexts of the site. Most evidence suggests that they were transported to Puerto Rico from Hispaniola and their populations were maintained, perhaps through tending (Newsom and Wing 2004). They may also have been released on the island to be hunted as they were attracted to human settlements. As tropical rodents, hutias were opportunistic feeders and would have enjoyed the added food sources provided by their human neighbors. It is probable that they would have thrived without human interference on the island, as there was little competition for food, and no predators other than humans. Lizards and snakes (Lacertilia, *Cyclura* sp., Colubridae) were also locally captured along with some birds.

The data also indicate that the Portugués River provided food resources. Fresh water eels (*Anguilla rostrata*), and the big mouth sleeper (*Gobiomorus dormitory*) are both found in riverine habitats. Emydid turtles (Emydidae) are freshwater species and may also be associated with the river and associated freshwater habitats.

While the local environment provided animal food resources, the presence of a significant number of marine animal species at PO-29 indicates that it was necessary for inhabitants to utilize non-local habitats in order to obtain a large portion of their protein. The majority of animals represented in the faunal assemblage, both by MNI and meat weight, come from marine or brackish water habitats. Shallow, inshore habitats and coral reefs were the most commonly exploited habitats based on both vertebrate and invertebrate species (Table 3). The most common mollusk species, the West Indian pointed venus (*Anomalocardia brasiliana*), and the turkey wing ark (*Arca zebra*), are shallow water species that could have been collected without the use of watercraft. The turkey wing ark often attaches to rocks and is therefore common around reefs as well (Warmke and Abbot 1961). Reef habitats were heavily exploited for fish species. The inhabitants of PO-29 likely exploited marine fishes using watercraft. Today, there are extensive reef habitats with 1-2 kilometers from the confluence of the Portugués River and the Caribbean Sea (Kendall et al. 2001). Pelagic species are rare. The true pelagic fish is present is the Tuna (*Thunnus* sp.). This exploitation of pelagic fish most certainly would have necessitated the use of a watercraft for specialized tools to fish in deeper waters. Other species

labeled as pelagic, such as the barracuda (*Sphyraena* sp.), sharks (Lamniformes), rays (Rajiformes), and flying fish (Exocoetidae), are also common in shallower inshore and reef habitats.

The use of mangrove habitats is indicated by the presence of wading birds in the faunal assemblage. Mangroves occur in areas near the mouth of the Portugués River (Kendall et al. 2001). Inhabitants of PO-29 would have encountered these habitat zones as they traveled to and from the coast.

TEMPORAL ANALYSIS

Patterns of habitat exploitation are consistent over time. Ceramic data and radiocarbon dating indicates that the earliest occupation of the site occurred around A.D. 400 (Jácana 1) and expanded around AD650 (Jácana 2). Archaeological investigations on the island of Puerto Rico indicate that at around this time period, the inhabitants of the island experienced a formative period of socio-political organization. Increasing populations and population densities resulted in a higher level of social complexity indicated by the expansion of ceremonial landscape features such as stone-lined bateys and religious iconography (Curet et al. 2006; Siegel 1999). The Jácana 4 temporal component is characterized by the expansion of the midden mound as well as the construction of the large batey (Espenshade et al. 2009). This increase in ceremonial space suggests that the people who repopulated the area on a permanent basis following the extended period of abandonment (Jácana 3) possessed a higher level of social organization. Iconographic representations of animals also become common in the many petroglyphs that were carved into the batey stones. Zoomorphic forms are extremely common in petroglyphs. The symbolic importance of the frog is solidified in the form of the Frog Lady, or Frog Goddess, depicted at PO-29 (Espenshade et al. 2009, See also Part 3) and elsewhere on Puerto Rico. Depictions of the frog form in iconography is most often associated with that of the cacique or chief, where the cacique is depicted as having descended from the Frog Lady, the primordial ancestor (Oliver 2005). At other sites, Maisable near the north coast and El Bronce on the Bucaná River near the south coast contain petroglyphs of marine animals including different types of fish, shark, and sea turtle (Roe 2005). This indicates that the inhabitants of these sites acknowledged the important role the animals played in their lives. Zoomorphic petroglyphs created during Jácana 4 at PO-29 suggest that animals may have played an integral part in the more formalized social practices of its later inhabitants.

The comparison of distribution of animal taxa identified from Jácana 2 and Jácana 4 shows some interesting trends (Graphs 1 and 3). Gastropods seem to decline in importance during the later component. There could be several explanations for such a trend. The gastropod taxa with the most dramatic decline were conchs (family Strombidae) (See Tables 6 and 8). These large

mollusks could be cumbersome to transport the long distance from the shore to the site. If this were the case, it is logical that the meat could be removed at the collecting ground and the shell left behind. Conchs would be greatly underrepresented in the assemblage if this were the case. Like most of the other mollusks exploited by the inhabitants of PO-29, conchs inhabit shallow water. Because of their size they are extremely visible. It is plausible that the reduction in number of conchs during the later phases at PO-29 reflect a reduced population due to overexploitation of the species (Keegan et al. 2003). The decrease in gastropods is compensated by a dramatic increase in the use of one particular bivalve species, the West Indian pointed venus (*Anomalocardia brasiliana*). This small clam increased from around 12% of the MNI during Jácana 2 to about 44% during Jácana 4. Reasons for this trend could also vary from environmental fluctuations to new technology. A single West Indian pointed venus supplies only a small amount of meat. Many individuals would have to be transported to the site for consumption. Due to its small size, it may have been prepared by combining it with other foods.

The second most common mollusk species was the turkey wing ark (*Arca zebra*). It was identified in relatively equal abundances during both time periods. This may reflect the habitats that were being exploited as turkey wing arks are commonly found attached to rocks and associated with reefs. This is consistent with the comparison of vertebrate class contribution during Jácana 2 and Jácana 4 (see Graph 3). The majority of fish identified species are associated with reef habitats (see Table 3). The contribution of fish remains consistently near 40% in both contexts. The persistent use of reef habitats is clear in the faunal data.

While fish use experienced little change over time, mammal use declined sharply during Jácana 4. It is not known why such a decline occurred. The non-native hutia (*Isolobodon portoricensis*) could have experienced a decrease in population during the later period due to over hunting. Or perhaps the hutia population required tending and was not properly maintained. Another mammal, the West Indian shrew (*Nesophontes edithae*) was present only in the early context. The small insectivore was likely captured in the same manner as hutia. Although it is now extinct, it did not become so until after European contact (Morgan and Woods 1986), probably due to the introduction of European rats. Guinea pig (*Cavia porcellus*) was identified from both time periods. In general, guinea pigs are rare in Puerto Rico and are typically recovered from contexts with later time periods (Newsom and Wing 2004). Jácana 2 spans from A.D. 650-900. The guinea pig recovered from Jácana 2 dates to an earlier time than specimens from the nearby Tibes site (deFrance et al. 2010).

The other significant trend that occurs in the vertebrate assemblage over time is the increased use in reptiles over time. The contribution of reptiles to the vertebrate assemblage almost triples from around 8% biomass to more than 21% from Jácana 2 to Jácana 4 time periods.

Specifically, there is an increase in the number of turtle remains in the later component. The increased use of turtle might reflect the decline in hutia during the later time period as people increasingly exploited their local habitat.

SPATIAL ANALYSIS

The spatial analysis is conducted by comparing the material in contexts that are in direct association with the batey/midden mound with those that are not. The batey and midden mound define ceremonial space which is typically associated with the activities of higher status individuals (deFrance 2009). Bateys and midden mounds are areas of social importance that indicate activities of ritual and ideological significance (Alegria 1983; Siegel 1996, 1999). Because of this, artifacts associated with bateys and midden mounds are often found to be of higher social significance. Therefore, faunal deposits in association with bateys should differ with those from more distant contexts. In the Caribbean, elite faunal assemblages are expected to contain taxa and individuals that are more difficult to obtain, such as exotic or non-endemic species, domesticates, rare species, or large fish (Deagan 2004; deFrance 2009). If bateys and midden mounds are areas of elite activities, then evidence of elite consumption should be present. The types of animals found in elite contexts are also expected to convey an elevated level of importance.

A comparison of the distribution of animal remains from the batey/midden mound and other contexts indicates that mollusk use is similar in each area. Gastropod and bivalve use does not differ much between the two contexts. In fact, meat weight estimates correct for the fact that some of the gastropod taxa are underrepresented in the total MNI due to the fragmentary nature of their remains. The result is that relatively equal amounts of gastropods and bivalves are used in both contexts. Despite this, the presence of two rare gastropod species--- the Caribbean vase (*Vasum mericatum*), and the milk conch (*Strombus costatus*)--- indicate that some of the mollusks were differentially distributed, although the disparity could be due to sample size.

Vertebrate remains show distinct differences in the two assemblages. Mammal use is more common in batey/midden contexts. Graph 4 shows that mammals contribute less than half of the proportionate vertebrate biomass in other contexts as they do in batey/midden mound contexts. The two most common mammal species are hutia and guinea pig. Neither of these species is endemic to the island; however hutia are common in all contexts. Zooarchaeology from Puerto Rican sites indicates human-animal relationships with hutia and guinea pig were quite disparate. Hutia may have been transported to the island and released into the wild. Hutia were typical island rodents and had no natural predators, were social, and were opportunistic feeders (Morgan and Woods 1986; Woods 1989). Therefore, they would have been easily hunted or trapped as

they scavenged near human settlements or in cultivated fields. Their populations could have been maintained either by human interference in breeding, or by periodically transporting and releasing more.

Guinea pigs are a true domesticate and rare in the Caribbean, suggesting more restricted access (Newsom and Wing 2004). It is probable that guinea pigs were exotic trade goods or imported as food. In parts of South America outside of the central Andes, guinea pigs appear as domesticates in the archaeological record immediately prior to, or in association with, evidence of extensive trade networks (Stahl and Norton 1987). These areas include the northern Andes and the Caribbean coast of South America. Such trade networks may have eventually extended into the Caribbean, possibly directly to the Greater Antilles from the north coast of South America (Rodriguez-Ramos 2007; Newsom and Wing 2004). Guinea pigs have more recently been recovered from archaeological sites on Carriocou and St. Lucia in the Lesser Antilles suggesting their transport may have been from the northeast coast of South America (deFrance and LeFevre 2009; Giovas et al. n.d.).

The contribution of fish to the overall vertebrate assemblage does not differ significantly between the batey/midden and other contexts. Pelagic fish include tuna (*Thunna* sp.) and Barracuda (*Sphyraena* sp.) and shark (Lamniformes) and all were recovered only from the batey/midden mound contexts. While this may be due to the rarity of pelagic fish at PO-29, it may also be due to sample size. Pelagic fish may also have been high value items due to procurement costs.

FAUNAL TRENDS AT PO-29

The faunal remains from PO-29 provide an understanding of how the people who inhabited the site used animals through time, and in different areas within the site. Archaeological investigations at PO-29 indicate that during its periods of occupation, its inhabitants were taking part in increasingly complex social and cultural phenomena as areas of ceremonial importance were expanded on the landscape. Faunal analysis indicates that animals played an important role in social processes that in some cases transcended diet. In order to provide protein, the people of PO-29 exploited a wide range of habitats. The local forest habitats as well as the Portugués River provided a portion of animal foods for daily consumption. Despite PO-29's inland local, the majority of animal food was provided by marine species obtained from the shallow seas and reefs that exist to the south of the site.

PO-29 experienced an extended period of abandonment, after which people resettled the site and created and expanded the ceremonial landscape in the form of a large batey and an expanded midden mound. These activities reflect the emergence of social complexity that characterizes Puerto Rico and the Caribbean at that time. Patterns of animal use at the site might reflect these

changes on some level. The reduction of gastropods and mammals in the later components could be caused by a change in food preferences or acquisition strategies. It could also be indicative of the stress put on the animal populations by the expansion of human settlements. Lastly, it could represent a change from a domestic focus to a ceremonial focus.

PO-29 also offers data that may elucidate food distribution patterns at the site. The comparison of ceremonial and non-ceremonial contexts defined by the spatial association of the batey and midden mound shows that certain foods, namely large gastropods and guinea pig, may have been restricted to ceremonial areas and, by proxy, individuals with high status.

The large batey and its associated religious iconography is intriguing and reflects the overall social trends that occurred on the island at the time of its occupations. However the site also contains multiple domestic and household contexts. The samples used in this study from areas outside the defined ceremonial space were relatively small. Future investigations that concentrate on these areas may offer a much needed understanding of the everyday activities of people living during a time of dynamic social change.

CONCLUSION

Identified animal remains from site PO-29 in south-central Puerto Rico indicate that the inhabitants of the site exploited several habitats including the local forested uplands and river, as well as the more distant mangroves, shoreline, and marine environments. Marine taxa from shallow inshore habitats, reefs, and deep water habitats are present in the PO-29 assemblage. The faunal assemblage from PO-29 shows patterns of animal use that indicate some variance in animal use through time and across the site. The use of mammals and gastropods were more common in ceremonial contexts and become less common through time. The assemblage provides important information that can be used comparatively with other sites on Puerto Rico to broaden our knowledge of prehistoric activities during times of increasing social complexity. If archaeologists return to the site, special attention should be given to domestic contexts in order to learn more about the everyday activities of the site’s inhabitants.

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APPENDIX A: SPECIMEN CATALOG SEPARATED BY INDIVIDUAL UNITS AND FEATURES

Table A-1. Invertebrates from Trench 19 Unit 126 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara notabilis	1	1	2.3	1.8	0.4
Anomalocardia brasiliana	11	7	15.9	4.4	0.9
Arca sp.	10	2	4.5	3.4	0.7
Arca zebra	9	3	6.8	10.6	2.2
Chione intapurpurea	1	1	2.3	4.2	0.9
Codakia orbicularis	4	2	4.5	9.0	1.9
Crassostrea rhizophorae	1	1	2.3	2.5	0.5
Solen obliquus	4	1	2.3	1.2	0.2
Bivalvia UID	4			1.0	0.2
Total Bivalvia	45	18	40.9	38.1	7.9
Astraea caelata	1	1	2.3	6.0	1.2
Cassis sp.	2	1	2.3	26.9	5.6
Strombus gigas	1	1	2.3	5.1	1.1
Strombus pugilis	14	12	27.3	262.6	54.4
Strombus sp.	21	8	18.2	71.5	14.8
Turritella variegata	3	3	6.8	2.7	0.6
Gastropoda UID	7			8.5	1.8
Total Gastropoda	49	26	59.1	383.3	79.5
Mollusca UID	40			12.1	2.5
Total MOLLUSCA	134	44	100.0	433.5	89.9
Anthozoa (Coral)	2	n\a		12.8	2.7
Faviidae (Brain Coral)	1	n\a		36.0	7.5
TOTAL INVERTEBRATA	137	44	100.0	482.3	100.0

Table A-2. Invertebrates from Trench 19 Unit 127 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara ovalis	1	1	2.8	0.8	0.2
Anomalocardia brasiliana	3	3	8.3	2.1	0.6
Arca zebra	14	4	11.1	23.7	7.2
Arcidae	5		0.0	1.9	0.6
Chama sp.	1	1	2.8	1.0	0.3
Codakia orbicularis	11	5	13.9	7.7	2.4
Crassostrea rhizophorae	2	1	2.8	9.1	2.8
Lucinidae	1	1	2.8	1.0	0.3
Tellina magna	6	2	5.6	19.1	5.8
Tellina sp.	1	1	2.8	2.4	0.7
Bivalvia UID	44			14.1	4.3
Total Bivalvia	89	19	52.8	82.9	25.3
Muricinae	5	1	2.8	17.1	5.2
Strombus pugilis	5	4	11.1	83.1	25.4
Strombus sp.	29	9	25.0	85.8	26.2
Turritella variegata	10	3	8.3	5.1	1.6
Gastropoda UID	14		0.0	6.7	2.0
Total Gastropoda	63	17	47.2	197.8	60.4
Mollusca UID	23			3.2	1.0
Total MOLLUSCA	175	36	100.0	283.9	86.7
Faviidae (Brain Coral)	3	n/a		5.9	1.8
Anthozoa (Coral)	2	n/a		37.7	11.5
Total Coral	5	n/a		43.6	13.3
TOTAL INVERTEBRATA	180	36	100.0	327.5	100.0

Table A-3. Invertebrates from Feature 101, Trench 19 Units 126 and 127 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara notabilis	3	1	0.7	3.4	0.6
Anadara sp.	1	1	0.7	1.6	0.3
Anomalocardia brasiliana	3	3	2.1	0.6	0.1
Arca zebra	62	30	20.8	128.1	21.1
Arcidae	169	1	0.7	32.5	5.3
Chama sp.	5	5	3.5	1.8	0.3
Chamidae	10	6	4.2	8.8	1.4
Codakia orbicularis	46	9	6.3	22.2	3.6
Donax denticulatus	1	1	0.7	0.1	0.0
Ostreidae	21	5	3.5	8.6	1.4
Phacoides pectinatus	1	1	0.7	9.0	1.5
Tellina fausta	4	3	2.1	33.6	5.5
Tellinidae	16	3	2.1	15.1	2.5
Bivalvia UID	17	3	2.1	11.9	2.0
Total Bivalvia	355	70	48.6	272.3	44.7
			0.0		0.0
Astraea caelata	5	3	2.1	4.7	0.8
Astrea sp.	4	2	1.4	2.0	0.3
Capulidae	1	1	0.7	1.1	0.2
Murex sp.	1	1	0.7	1.3	0.2
Muricidae	5	5	3.5	17.0	2.8
Neritina sp.	12	8	5.6	1.4	0.2
Neritina virginea	7	4	2.8	0.6	0.1
Strombus sp.	17	8	5.6	70.0	11.5
Strombus pugilis	3	3	2.1	100.4	16.5
Turitella variegata	55	32	22.2	36.7	6.0
Vermetidae	16		0.0	0.4	0.1
Gastropoda UID	29	5	3.5	4.9	0.8
Total Gastropoda	155	72	50.0	240.5	39.5
			0.0		0.0
Mollusca UID			0.0	82.7	13.6
Total MOLLUSCA	510	142	98.6	595.5	97.9
Decapoda	2	2	1.4	0.2	0.0
Anthozoa (coral)	4		0.0	12.8	2.1
			0.0		0.0
TOTAL INVERTEBRATA	516	144	100.0	608.5	100.0

TABLE A-4. Invertebrates from Midden Mound Unit 107 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anomalocardia brasiliana	14	2	7.4	7.5	3.0
Arca zebra	11	7	25.9	28.4	11.4
Arcidae	1			0.4	0.2
Codakia obicularis	3	1	3.7	1.3	0.5
Crassostrea rhizophorae	2	1	3.7	3.5	1.4
Bivalvia UID				3.8	1.5
Total Bivalvia	31	11	40.7	44.9	18.1
Astraea sp.	2	2	7.4	2.4	1.0
Strombus pugilis	1	1	3.7	29.5	11.9
Strombus sp.	10	9	33.3	67.2	27.1
Turitella variegata	5	2	7.4	2.1	0.8
Gastropoda UID	9	2	7.4	34.9	14.1
Total Gastropoda	27	16	59.3	136.1	54.9
Mollusca UID				22.0	8.9
Total MOLLUSCA	58	27	100.0	203.0	81.8
Anthozoa (coral)	1			45.1	18.2
TOTAL INVERTEBRATA	59	27	100.0	248.1	100.0

TABLE A-5. Invertebrates from Trench 19 Unit 151, Strata A, B, and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anomalocardia brasiliana	1	1	4.2	0.7	0.3
Arca zebra	3	2	8.3	3.3	1.3
Arcidae				9.5	3.8
Bivalvia UID	21			9.2	3.7
Total Bivalvia	25	3	12.5	22.7	9.1
Astraea sp.	1	1	4.2	0.9	0.4
Cittarium pica	1	1	4.2	60.0	24.1
Strombus sp.	10	8	33.3	60.4	24.3
Turitella sp.	68	9	37.5	61.2	24.6
Gastropoda UID	6	2	8.3	7.8	3.1
Total Gastropoda	86	21	87.5	190.1	76.4
Mollusca UID	4			12.8	5.1
Total MOLLUSCA	179	24	100.0	212.8	85.5
Anthozoa (coral)	8			36.0	14.5
TOTAL INVERTEBRATA	187	24	100.0	248.8	100.0

TABLE A-6. Invertebrates from Trench 19 Unit 151, Strata D and E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anomalocardia brasiliana	5	3	30.0	2.7	8.5
Arca zebra	4	3	30.0	8.0	25.2
Arcidae	2			0.6	1.9
Codakia obicularis	2	1	10.0	5.3	16.7
Bivalvia UID	4			0.4	1.3
Total Bivalvia	17	7	70.0	17.0	53.6
Astraea sp.	2	1	10.0	1.0	3.2
Strombus sp.	4	1	10.0	8.3	26.2
Turitella variegata	1	1	10.0	1.8	5.7
Gastropoda UID	2			0.4	1.3
Total Gastropoda	9	3	30.0	11.5	36.3
Mollusca UID	19			3.1	9.8
Total MOLLUSCA	45	10	100.0	31.6	99.7
Anthozoa	1			0.1	0.3
TOTAL INVERTEBRATA	46	10	100.0	31.7	100.0

TABLE A-7. Invertebrates from Trench 19 Unit 151, Feature 280 (Jácana 2)

TAXON	NISP	MNI	Weight (g)
Anomalocardia brasiliana	2	1	1.4
Arca zebra	3	1	4.4
Codakia obicularis	1	1	1.1
Bivalvia UID	5		1.1
Total Bivalvia	11	3	8.0
Astrea sp.	1	1	0.3
Turitella variegata	3	1	0.7
Gastropoda UID	2		0.7
Total Gastropoda	6	2	1.7
Mollusca UID			0.7
TOTALS	17	5	10.4

TABLE A-8. Invertebrates from Trench 19 Unit 151, Feature 279 (Jácana 2)

TAXON	NISP	MNI	Weight (g)
Anomalocardia brasiliana	5	5	4.8
Arca zebra	1		2.9
Arcidae	4		2.1
Crassostrea rhizophorae	2	1	0.6
Bivalvia UID			0.4
Total Bivalvia	12	6	10.8
Neritina sp.	1	1	0.4
Neritina virginea	3	3	1.0
Total Gastropoda	4	4	1.4
Mollusca UID			1.5
TOTALS	32	20	25.9

TABLE A-9. Invertebrate Faunal Remains from Trench 19 Unit 145, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara sp.	3	1	2.2	1.3	0.2
Arca zebra	14	4	8.7	22.6	3.2
Codakia orbicularis	1	1	2.2	1.1	0.2
Crassostrea rhizophorae	1	1	2.2	2.5	0.4
Phacoides pectinatus	2	1	2.2	5.6	0.8
Tellinidae	1	1	2.2	3.8	0.5
Bivalvia UID	20			4.4	0.6
Total Bivalvia	42	9	17.4	41.3	5.9
Murex sp.	2	1	2.2	2.4	0.3
Strombidae	13	5	10.9	37.4	5.3
Strombus pugilis	9	9	19.6	254.3	36.1
Strombus sp.	9	5	10.9	28.9	4.1
Strombus spp.	26	13	28.3	123.3	17.5
Trochidae	1	1	2.2	2.0	0.3
Turritella variegata	5	4	8.7	4.5	0.6
Gastropoda UID	18			51.0	7.2
Total Gastropoda	83	38	82.6	503.8	71.6
Mollusca UID	29			8.0	1.1
Total MOLLUSCA	154	47	100.0	553.1	78.6
Faviidae (Brain Coral)	2	n/a		42.3	6.0
Anthozoa (Coral)	6	n/a		108.6	15.4
Total Coral	8	n/a		150.9	21.4
TOTAL INVERTEBRATA	162	47	100.0	704.0	100.0

TABLE A-10. Invertebrates from Trench 19 Unit 145, Stratum E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara ovalis	2	1	7.1	2.3	1.5
Arca zebra	9	3	21.4	11.5	7.4
Lucinidae	2		0.0	3.4	2.2
Tellina fausta	1	1	7.1	3.9	2.5
Tellinidae	2		0.0	1.6	1.0
Bivalvia UID	6		0.0	1.1	0.7
Total Bivalvia	22	5	35.7	23.8	15.3
Murex sp.	1	1	7.1	6.4	4.1
Strombus pugilis	2	2	14.3	62.0	39.8
Strombus sp.	12	4	28.6	58.3	37.4
Turritella variegata	2	2	14.3	1.1	0.7
Gastropoda UID	5		0.0	0.8	0.5
Total Gastropoda	22	9	64.3	128.6	82.6
Mollusca UID	29		0.0	2.3	1.5
Total MOLLUSCA	73	14	100.0	154.7	99.4
Anthozoa (Coral)	2		0.0	1.0	0.6
TOTAL INVERTEBRATA	75	14	100.0	155.7	100.0

TABLE A-11. Invertebrates from Trench 19 Units 145 and 147, Feature 116 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara spp.	4	1	10	6.3	5.8
Arca zebra	2	1	10	0.8	0.7
Bivalvia UID	1			0.4	0.4
Total Bivalvia	7	2	20	7.5	6.9
Cittarium pica	6	1	10	4.9	4.5
Strombus pugilis	1	1	10	24.4	22.4
Strombus sp.	8	6	60	59.8	54.9
Gastropoda UID	3			1.7	1.6
Total Gastropoda	18	8	80	90.8	83.3
Mollusca UID	29			2.0	1.8
Total MOLLUSCA	54		100		
Anthozoa (Coral)	11			8.7	8.0
TOTALS INVERTEBRATA	65	10	100	109.0	100.0

TABLE A-12. Invertebrates from Trench 19 Unit 146, Stratum A (Jácana 4)

TAXON	NISP	MNI	Weight (g)
Bivalvia UID	1		0.1
Strombus sp.	1		1.4
Mollusca UID	1		0.1
TOTAL INVERTEBRATA	3		1.6

TABLE A-13. Invertebrates from Trench 19 Unit 146, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara leinosa floridana	2	2	3.6	11.3	1.3
Anadara notabilis	4	3	5.4	27.9	3.3
Anadara sp.	3			3.8	0.4
Anomalocardia brasiliana	3	2	3.6	1.4	0.2
Arca zebra	38	3	5.4	74.4	8.7
Chamidae	1			0.7	0.1
Chione cancellata	1	1	1.8	1.5	0.2
Codakia orbicularis	2	1	1.8	2.3	0.3
Crassostrea rhizophorae	2	1	1.8	2.1	0.2
Bivalvia UID	94			23.8	2.8
Total Bivalvia	150	13	23.2	149.2	17.5
Astraea caelata	2	5	8.9	23.6	2.8
Cassidae	1	1	1.8	30.4	3.6
Murex pomum	1	1	1.8	23.3	2.7
Murex sp.	4	2	3.6	43.0	5.0
Neritidae	1	1	1.8	0.4	0.0
Strombus gigas	3	2	3.6	34.1	4.0
Strombus pugilis	12	10	17.9	364.0	42.6
Strombus sp.	24	12	21.4	107.2	12.6
Turritella variegata	14	9	16.1	22.6	2.6
Gastropoda UID	51			17.2	2.0
Total Gastropoda	113	43	76.8	665.8	78.0
Mollusca UID	50			8.1	0.9
Total MOLLUSCA	313	56	100.0	823.1	96.4
Anthozoa (Coral)	11			30.4	3.6
TOTAL INVERTEBRATA	324	56	100.0	853.5	100.0

TABLE A-14. Invertebrates from Trench 19 Unit 146, Strata D and E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara notabilis	1	1	5.3	16.0	16.1
Anomalocardia brasiliana	4	2	10.5	2.4	2.4
Arca zebra	18	6	31.6	46.6	46.9
Crassostrea rhizophorae	1	1	5.3	2.2	2.2
Tellinidae	1	1	5.3	1.7	1.7
Bivalvia UID	7		0.0	7.7	7.8
Total Bivalvia	32	11	57.9	76.6	77.1
Nodilittorina tuberculata	1	1	5.3	0.5	0.5
Strombus gigas	4	1	5.3	9.4	9.5
Turritella variegata	6	6	31.6	12.8	12.9
Total Gastropoda	11	8	42.1	22.7	22.9
TOTAL INVERTEBRATA	43	19	100.0	99.3	100.0

TABLE A-15. Invertebrates from Trench 19 Unit 146, Feature 115 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara sp.	4	1	0.6	5.5	0.5
Anomalocardia brasiliana	205	71	40.8	144.7	13.4
Arca zebra	404	76	43.7	461.3	42.6
Chamidae	3	1	0.6	1.3	0.1
Codakia orbicularis	7	1	0.6	5.5	0.5
Crassostrea rhizophorae	9	1	0.6	6.8	0.6
Solen obliquus	4	2	1.1	3.1	0.3
Tellinidae	6	1	0.6	7.1	0.7
Bivalvia UID	285		0.0	26.2	2.4
Total Bivalvia	927	154	88.5	661.5	61.1
Cittarium pica	2	1	0.6	2.4	0.2
Murex brevifrons	1	1	0.6	38.6	3.6
Nerita sp.	1	1	0.6	0.1	0.0
Strombus pugilis	13	6	3.4	205.1	18.9
Strombus sp.	12	7	4.0	83.1	7.7
Turritella variegata	7	4	2.3	5.1	0.5
Gastropoda UID	12		0.0	6.6	0.6
Total Gastropoda	48	20	11.5	341.0	31.5
Mollusca UID	281		0.0	18.1	1.7
Total MOLLUSCA	1256	174	100.0	1020.6	94.3
Anthozoa (Coral)	18			62.0	5.7
TOTAL INVERTEBRATA	1274	174	100.0	1082.6	100.0

TABLE A-16. Invertebrates from Trench 19 Unit 147, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara notibilis	1	1	1.9	7.1	0.7
Anomalocardia brasiliana	3	3	5.7	1.5	0.1
Arca zebra	7	5	9.4	17.5	1.7
Arcidae	12			10.9	1.1
Chama macerophylla	3	2	3.8	14.0	1.4
Codakia obicularis	4	1	1.9	4.0	0.4
Lucinidae	2	1	1.9	4.0	0.4
Phacoides pectinatus	1	1	1.9	2.3	0.2
Bivalvia UID	8			15.9	1.5
Total Bivalvia	41	14	26.4	77.2	7.5
Astrea sp.	1	1	1.9	8.9	0.9
Strombidae	59	24	45.3	273.5	26.5
Strombus costatus	2	1	1.9	83.1	8.1
Strombus pugilis	12	11	20.8	333.7	32.4
Strombus sp.	2			7.6	0.7
Turitella variegata	2	2	3.8	6.8	0.7
Gastropoda UID	9			9.5	0.9
Total Gastropoda	87	39	73.6	723.1	70.2
Mollusca UID				28.2	2.7
Total MOLLUSCA	128	53	100.0	828.5	80.4
Anthozoa	19			202.2	19.6
TOTAL INVERTEBRATA	147	53	100.0	1030.7	100.0

TABLE A-17. Invertebrates from Trench 19 Unit 147, Strata D and E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara floridana	1	1	2.8	5.2	1.1
Anadara ovalis	1	1	2.8	1.7	0.3
Anomalocardia brasiliana	4	3	8.3	2.2	0.4
Arca zebra	20	8	22.2	33.9	6.9
Arcidae	32		0.0	15.9	3.2
Chamidae	1	1	2.8	2.3	0.5
Chione cancellata	1	1	2.8	0.7	0.1
Codakia obicularis	12	3	8.3	15.1	3.1
Crassostrea rhizophorae	2	2	5.6	6.2	1.3
Lucina pectinatus	1	1	2.8	0.8	0.2
Tellinidae	7	1	2.8	22.8	4.6
Bivalvia UID	9		0.0	5.7	1.2
Total Bivalvia	94	22	61.1	182.3	37.0
Astrea caelata	6	1	2.8	6.3	1.3
Strombidae	23		0.0	68.5	13.9
Strombus pugilis	9	7	19.4	191.2	38.8
Strombus sp.	1		0.0	12.0	2.4
Turitella variegata	15	6	16.7	6.8	1.4
Gastropoda UID	7		0.0	13.9	2.8
Total Gastropoda	61	14	38.9	298.7	60.6
Mollusca UID			0.0	11.8	2.4
Total MOLLUSCA	155	36	100.0	481.0	97.6
Anthozoa (coral)	3		0.0	69.8	14.2
TOTAL INVERTEBRATA	155	36	100.0	492.8	100.0

TABLE A-18. Invertebrates from Trench 19 Unit 148, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara floridana	1	1	0.6	16.5	0.6
Anadara notibilis	9	6	3.4	93.7	3.6
Anadara ovalis	6	14	7.8	17.9	0.7
Anomalocardia brasiliana	66	23	12.8	40.4	1.5
Arca imbricata	4	2	1.1	3.8	0.1
Arca zebra	50	22	12.3	148.9	5.7
Arcidae	1		0.0	42.8	1.6
Barbatia cancellaria	1	1	0.6	3.9	0.1
Chama macerophylla	1	2	1.1	36.7	1.4
Codakia obicularis	25	6	3.4	38.3	1.5
Crassostrea rhizophorae	16	2	1.1	28.1	1.1
Phacoides pectinatus	5	3	1.7	20.9	0.8
Solenidae	2	1	0.6	1.3	0.0
Tellina fausta	9	4	2.2	110.9	4.2
Tellina sp.	34		0.0	44.7	1.7
Bivalvia UID			0.0	21.8	0.8
Total Bivalvia	230	87	48.6	670.6	25.6
Astraea caelata	1	1	0.6	7.5	0.3
Cittarium pica	2	1	0.6	9.0	0.3
Muricidae	10	6	3.4	95.8	3.7
Neritina sp.	1	1	0.6	0.4	0.0
Stombus costatus	3	2	1.1	130.5	5.0
Strombidae	73	14	7.8	324.3	12.4
Strombus pugilis	35	33	18.4	1030.1	39.4
Strombus sp.	6	1	0.6	14.7	0.6
Turitella variegata	51	33	18.4	86.8	3.3
Gastropoda UID	18		0.0	16.2	0.6
Total Gastropoda	200	92	51.4	1715.3	65.6
Mollusca UID			0.0	31.2	1.2
Total MOLLUSCA	430	179	100.0	2417.1	92.4
Anthozoa (Coral)	18		0.0	198.7	7.6
TOTAL INVERTEBRATA	448	179	100.0	2615.8	100.0

TABLE A-19. Invertebrates from Trench 19 Unit 148, Strata D and E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Americardia media	1	1	1.3	1.3	0.2
Anadara notibilis	2	2	2.7	7.4	1.1
Anadara ovalis	3	3	4.0	4.7	0.7
Anomalocardia brasiliana	7	5	6.7	4.2	0.6
Arca imbricata	7	3	4.0	5.8	0.9
Arca zebra	76	24	32.0	204.1	31.6
Arcidae	27		0.0	32.3	5.0
Codakia obicularis	33	4	5.3	28.4	4.4
Crassostrea rhizophorae	5	2	2.7	25.1	3.9
Lucinidae	4	1	1.3	4.2	0.6
Phacoides pectinatus	2	2	2.7	10.3	1.6
Solenidae	3	1	1.3	0.4	0.1
Tellina fausta	25	5	6.7	60.7	9.4
Bivalvia UID	4		0.0	16.4	2.5
Total Bivalvia	199	53	70.7	405.3	62.7
Astraea caelata	1	1	1.3	8.1	1.3
Astraea sp.	1	1	1.3	0.3	0.0
Muricidae	3	2	2.7	12.0	1.9
Strombidae	20	2	2.7	63.2	9.8
Strombus pugilis	4	2	2.7	74.1	11.5
Turitella variegata	24	14	18.7	42.5	6.6
Gastropoda UID	7		0.0	8.1	1.3
Total Gastropoda	60	22	29.3	208.3	32.2
Mollusca UID	6		0.0	6.7	1.0
Total MOLLUSCA	265	75	100.0	620.3	96.0
Anthozoa (Coral)	12		0.0	25.9	4.0
TOTAL INVERTEBRATA	277	75	100.0	646.2	100.0

TABLE A-20. Invertebrates from Feature 111, Trench 19 Units 148 and 149 (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara notabilis	1	1	2.3	11.2	1.7
Anomalocardia brasiliana	16	5	11.4	4.9	0.8
Arca zebra	17	8	18.2	30.50	4.7
Arcidae	42	1	2.3	22.40	3.4
Astraea sp.	1	1	2.3	5.90	0.9
Barbatia candida	1	1	2.3	1.9	0.3
Cardiidae	1	1	2.3	0.4	0.1
Chama macerohylla	1	1	2.3	28.3	4.3
Codakia obicularis	10	1	2.3	4.0	0.6
Crassostrea rhizophorae	3	1	2.3	2.2	0.3
Phacoides pectinatus	2	1	2.3	4.6	0.7
Tellinidae	1			1.3	0.2
Bivalvia UID	8			18.2	2.8
Total Bivalvia	104	22	50.0	135.8	20.8
Cittarium pica	2	1	2.3	3.5	0.5
Littorinidae	1	1	2.3	1.1	0.2
Strombidae	31	2	4.5	108.00	16.5
Strombus pugilis	5	5	11.4	166.8	25.5
Strombus sp.	18	6	13.6	134.8	20.6
Turritella variegata	32	7	15.9	17.9	2.7
Gastropoda UID	6	22	50.0	0.9	0.1
Total Gastropoda	95			433.0	66.3
Mollusca UID	17			17.2	2.6
Total MOLLLUSCA	216	44	100.0	586.0	89.7
Anthozoa (Coral)	28			67.3	10.3
TOTAL INVERTEBRATA	244	44	100.0	653.3	100.0

TABLE A-21. Invertebrates from Trench 19 Unit 149, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara notabilis	7	3	1.5	31.7	1.4
Anadara ovalis	2	2	1.0	5.1	0.2
Anomalocardia brasiliana	110	39	18.9	85.7	3.8
Arca zebra	115	49	23.8	302.6	13.5
Arcidae	118		0.0	58.0	2.6
Chamidae	8	2	1.0	8.1	0.4
Chione cancellata	1	1	0.5	2.1	0.1
Codakia obicularis	30	2	1.0	43.3	1.9
Crassostrea rhizophorae	11	4	1.9	18.5	0.8
Lucinidae	1	1	0.5	2.2	0.1
Phacoides pectinatus	8	5	2.4	20.6	0.9
Solenidae	3	3	1.5	3.3	0.1
Tellina fausta	13	4	1.9	71.4	3.2
Tellinidae	8	7	3.4	11.0	0.5
Bivalvia UID	10		0.0	12.2	0.5
Total Bivalvia	445	122	59.2	675.8	30.2
Astrea caelata	1	1	0.5	9.9	0.4
Cittarium pica	1	1	0.5	9.1	0.4
Muricidae	8	4	1.9	131.2	5.9
Neritina sp.	1	1	0.5	0.6	0.0
Strombidae	9	1	0.5	85.4	3.8
Strombus pugilis	39	17	8.3	544.0	24.3
Strombus sp.	102	40	19.4	457.8	20.5
Turitella variegata	38	19	9.2	49.1	2.2
Gastropoda UID	2		0.0	21.0	0.9
Total Gastropoda	201	84	40.8	1308.1	58.5
Mollusca UID			0.0	32.6	1.5
Total MOLLUSCA	646	206	100.0	2016.5	90.2
Anthozoa	23		0.0	218.1	9.8
TOTAL INVERTEBRATA	669	206	100.0	2234.6	100.0

TABLE A-22. Invertebrates from Trench 19 Unit 149, Strata D and E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara chemnitii	1	1	1.5	1.6	0.3
Anadara leinosa floridana	1	1	1.5	4.2	0.8
Anadara notabilis	3	3	4.5	26.4	5.0
Anadara ovalis	2	1	1.5	3.5	0.7
Anadara sp.	3			5.8	1.1
Anomalocardia brasiliana	18	8	11.9	8.8	1.7
Arca zebra	66	23	34.3	80.8	15.3
Arcidae	13			11.8	2.2
Chama macerophylla	1	1	1.5	14.2	2.7
Chamidae	1	1	1.5	2.3	0.4
Chione cancellata	1	1	1.5	1.2	0.2
Codakia orbicularis	7	2	3.0	6.9	1.3
Crassostrea rhizophorae	7	2	3.0	8.6	1.6
Tellina fausta	2	2	3.0	6.9	1.3
Tellinidae	27	2	3.0	28.6	5.4
Bivalvia UID	82			17.3	3.3
Total Bivalvia	235	48	71.6	228.9	43.4
Astraea caelata	1			2.2	0.4
Astraea sp.	4	1	1.5	2.4	0.5
Murex sp.	2			5.6	1.1
Strombus gigas	1			9.8	1.9
Strombus pugilis	4	3	4.5	84.2	16.0
Strombus sp.	20	8	11.9	60.6	11.5
Turritella variegata	28	8	11.9	39.2	7.4
Gastropoda UID	7			1.8	0.3
Total Gastropoda	67	20	29.9	205.8	39.0
Mollusca UID	23			13.0	2.5
Total MOLLUSCA	325	67	100.0	447.7	84.9
Faviidae (Brain Coral)	3			72.4	13.7
Anthozoa (Coral)	4			7.4	1.4
Total Coral	7			79.8	15.1
TOTAL INVERTEBRATA	332	68	101.5	527.5	100.0

TABLE A-23. Invertebrates from Feature 112, Trench 19 Units 149 and 150 (Jácana 4)

TAXON	NISP	MNI	Weight(g)
Arcidae	3		1.0
Anomalocardia brasiliana	2	1	0.2
Mollusca UID	4		0.2
TOTAL INVERTEBRATA	9	1	1.4

TABLE A-24. Invertebrates from Trench 19 Unit 150, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara leinosa floridana	3	2	0.6	31.3	1.3
Anadara notabilis	12	5	1.4	44.7	1.8
Anadara ovalis	2	2	0.6	4.4	0.2
Anadara sp.	5			4.0	0.2
Anomalocardia brasiliana	344	155	44.0	239.2	9.9
Arca imbricata	2	2	0.6	4.8	0.2
Arca zebra	178	91	25.9	451.0	18.7
Arcidae	79			44.2	1.8
Barbatia candida	1	1	0.3	0.9	0.0
Codakia orbiculata	26	9	2.6	54.9	2.3
Crassostrea rhizophorae	9	1	0.3	15.3	0.6
Lucinidae	23			13.6	0.6
Chama macerophylla	1	1	0.3	8.4	0.3
Chamidae	15	1	0.3	8.4	0.3
Plicatula gibbosa	1	1	0.3	0.8	0.0
Solen obliquus	13	1	0.3	4.1	0.2
Tellina fausta	20	6	1.7	96.7	4.0
Tellinidae	46	1	0.3	35.8	1.5
Bivalvia UID	151			33.1	1.4
Total Bivalvia	931	279	79.3	1095.6	45.3
Astraea caelata	1	1	0.3	7.3	0.3
Cassis sp.	1	1	0.3	13.2	0.5
Chama macerophylla	1	1	0.3	8.4	0.3
Chamidae	15	1	0.3	8.4	0.3
Cittarium pica	5	2	0.6	12.0	0.5
Murex sp.	4	4	1.1	34.2	1.4
Neritidae	1	1	0.3	0.6	0.0
Strombus gigas	2			13.0	0.5
Strombus pugilis	32	26	7.4	610.3	25.2
Strombus sp.	99	20	5.7	284.9	11.8
Turbinidae	1			1.1	0.0
Turritella variegata	26	14	4.0	39.2	1.6
Vasum muricatum	3	2	0.6	69.2	2.9
Gastropoda UID	20			19.7	0.8
Total Gastropoda	211	73	20.7	1121.5	46.4
Mollusca UID	123			12.8	0.5
Total MOLLUSCA	1265	352	100.0	2229.9	92.2
Faviidae (Brain Coral)	3			18.8	0.8
Anthozoa (Coral)	35			169.0	7.0
TOTAL INVERTEBRATA	1303	352	100.0	2417.7	100.0

TABLE A-25. Invertebrates from Trench 19 Unit 150, Strata D and E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara chemnitii	1	1	0.7	1.5	0.1
Anadara leinosa floridana	1	1	0.7	1.3	0.1
Anadara notabilis	3	1	0.7	9.3	0.9
Anadara ovalis	6	3	2.0	6.8	0.7
Anadara sp.	13	3	2.0	11.5	1.1
Anomalocardia brasiliana	41	20	13.6	23.5	2.3
Arca imbricata	1	1	0.7	0.6	0.1
Arca zebra	115	56	38.1	218.9	21.6
Arcidae	122		0.0	63.0	6.2
Chamidae	1	1	0.7	0.9	0.1
Chione cancelata	2	1	0.7	1.7	0.2
Codakia orbicularis	12	4	2.7	18.0	1.8
Crassostrea rhizophorae	5	3	2.0	6.2	0.6
Lucinidae	13			8.9	0.9
Phacoides pectinatus	6	2	1.4	9.0	0.9
Tellina fausta	5	2	1.4	9.3	0.9
Tellinidae	22			24.2	2.4
Trachycardium isocardia	3	1	0.7	2.8	0.3
Bivalvia UID	10			14.4	1.4
Total Bivalvia	382	100	68.0	431.8	42.6
Cittarium pica	1	1	0.7	5.0	0.5
Murex sp.	3	2	1.4	2.6	0.3
Neritidae	1	1	0.7	0.3	0.0
Strombus costatus	1	1	0.7	38.4	3.8
Strombus gigas	1	1	0.7	12.9	1.3
Strombus pugilis	9	7	4.8	201.8	19.9
Strombus sp.	56	10	6.8	182.5	18.0
Turbinidae	1	1	0.7	0.6	0.1
Turritella variegata	52	24	16.3	68.2	6.7
Gastropoda UID	5			19.1	1.9
Total Gastropoda	130	48	32.7	531.4	52.5
Mollusca UID	148			14.3	1.4
Total MOLLUSCA	660	148	100.7	977.5	96.5
Faviidae (Brain Coral)	2			10.8	1.1
Anthozoa (Coral)	8			24.5	2.4
TOTAL INVERTEBRATA	670	147	100.0	1012.8	100.0

TABLE A-26. Invertebrates from Feature 108, Trench 19 Unit 150 (Jácana 4)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara notabilis	2	1	0.6	5.3	0.6
Anadara ovalis	1	1	0.6	2.0	0.2
Anomalocardia brasiliana	230	72	45.0	98.60	11.8
Arca imbricata	2	2	1.3	1.4	0.2
Arca zebra	93	46	28.8	188.40	22.6
Arcidae	59			22.70	2.7
Chamidae	1			0.3	0.0
Codakia orbicularis	6	3	1.9	5.5	0.7
Crassostrea rhizophorae	4	1		2.6	0.3
Lucinidae	24			8.7	1.0
Phacoides pectinatus	2	2	1.3	13.7	1.6
Pliculata gibbosa	2	1	0.6	0.2	0.0
Pseudochama radians	1	1	0.6	2.2	0.3
Solen obliquus	3	1	0.6	1.1	0.1
Tellina fausta	2	2	1.3	6.00	0.7
Tellinidae	31			29.80	3.6
Bivalvia UID	46			7.2	0.9
Total Bivalvia	510	133	83.1	396.5	47.6
Echininous nodulosus	1	1	0.6	0.8	0.1
Murex sp.	1	1	0.6	4.3	0.5
Muricidae	2	1	0.6	1.50	0.2
Strombidae	3			4.80	0.6
Strombus gigas	1	1	0.6	4.9	0.6
Strombus pugilis	13	10	6.3	195.60	23.5
Strombus sp.	44	12	7.5	138.2	16.6
Turritella variegata	4	1	0.6	2.0	0.2
Gastropoda UID	21	1	0.6	6.5	0.8
Total Gastropoda	89	27	16.9	357.8	42.9
Mollusca UID				31.3	3.8
Total MOLLUSCA	599	160	100.0	785.6	94.3
Faviidae (Brain Coral)	1		0.0	2.4	0.3
Anthozoa (Coral)	13		0.0	45.1	5.4
TOTAL VERTEBRATA	613	160	100.0	833.1	100.0

TABLE A-27. Invertebrates from N. Batey Trench Unit 153 Levels 1 and 2 (Jácana 4/5)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara floridana	1	1	0.8	14.8	2.7
Anadara notabilis	2	2	1.6	12.8	2.4
Anadara ovalis	1	1	0.8	6.2	1.1
Anomalocardia brasiliana	116	54	43.9	73.6	13.6
Arca zebra	47	26	21.1	142.6	26.4
Arcidae	5			3.1	0.6
Chamidae	2	2	1.6	12.0	2.2
Chione cancellata	4	3	2.4	5.4	1.0
Codakia costata	1	1	0.8	1.9	0.4
Codakia obicularis	36	9	7.3	77.3	14.3
Lucina pectinatus	11	4	3.3	10.9	2.0
Rupellaria typica	3	1	0.8	0.3	0.1
Tellina fausta	19	7	5.7	84.0	15.5
Bivalvia UID	3			3.4	0.6
Total Bivalvia	251	111	90.2	448.3	82.9
Astrea caelata	1	1	0.8	2.1	0.4
Muricidae	4	2	1.6	8.3	1.5
Neritina sp.	1	1	0.8	1.3	0.2
Neritina virginea	2	2	1.6	10.2	1.9
Strombidae	3	2	1.6	16.6	3.1
Turitella variegata	3	3	2.4	5.6	1.0
Gastropoda UID	4	1	0.8	8.5	1.6
Total Gastropoda	18	12	9.8	52.6	9.7
Mollusca UID	1			5.6	1.0
Total MOLLUSCA	270	123	100.0	506.5	93.7
Anthozoa (Coral)	1			34.2	6.3
TOTAL VERTEBRATA	271	123	100.0	540.7	100.0

TABLE A-28. Invertebrates from N. Batey Trench Unit 153, Levels 3-6 (Jácana 4)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Anadara ovalis	1	1	0.9	0.6	0.1
Anomalocardia brasiliana	211	46	43.4	159.2	31.8
Arca imbricata	3	2	1.9	5.9	1.2
Arca zebra	43	23	21.7	137.5	27.4
Arcidae	16		0.0	16.3	3.3
Chamidae	2	1	0.9	0.9	0.2
Codakia obicularis	21	3	2.8	29.7	5.9
Crassostrea rhizophorae	3	3	2.8	5.2	1.0
Crepidula aculeata	1	1	0.9	0.3	0.1
Isognomon alatus	1	1	0.9	0.7	0.1
Lucina pectinatus	3	2	1.9	8.5	1.7
Mytilopsis dominguensis	2	2	1.9	0.1	0.0
Solenidae	1	1	0.9	0.3	0.1
Tellina fausta	5	2	1.9	20.7	4.1
Tellinidae	8	2	1.9	20.1	4.0
Bivalvia UID	10		0.0	3.4	0.7
Total Bivalvia	331	90	84.9	409.4	81.7
Cerithiidae	1	1	0.9	0.2	0.0
Muricidae	1	1	0.9	11.4	2.3
Neritina clenchi	2	2	1.9	2.1	0.4
Neritina sp.	1	1	0.9	0.3	0.1
Neritina virginea	2	2	1.9	1.2	0.2
Strombidae	4	1	0.9	3.1	0.6
Turitella variegata	7	6	5.7	9.1	1.8
Gastropoda UID	2	2	1.9	1.5	0.3
Total Gastropoda	20	16	15.1	28.9	5.8
Mollusca UID			0.0	9.2	1.8
Total MOLLUSCA	351	106	100.0	447.5	89.3
Anthozoa (Coral)	5		0.0	53.6	10.7
TOTAL INVERTEBRATA	356	106	100.0	501.1	100.0

TABLE A-29. Invertebrates from Trench 7 Unit 138 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara sp.	5	3	5.0	14.2	6.7
Anomalocardia brasiliana	74	18	30.0	24.1	11.3
Arca zebra	56	20	33.3	50.0	23.4
Arcidae	1	1	1.7	0.6	0.3
Astraea sp.	2	2	3.3	3.0	1.4
Cittarium pica	28	1	1.7	22.2	10.4
Codakia orbicularis	2	2	3.3	6.2	2.9
Crassostrea rhizophorae	4			4.5	2.1
Phacoides pectinatus	2	1	1.7	4.8	2.3
Bivalvia UID	61			5.7	2.7
Total Bivalvia	235	48	80.0	135.3	63.4
Echininus nodulosus	1	1	1.7	0.9	0.4
Modulus modulus	1	1	1.7	0.7	0.3
Murex sp.	1	1	1.7	10.3	4.8
Strombus pugilis	2	2	3.3	3.4	1.6
Strombus sp.	9	3		34.8	16.3
Turritella variegata	5	4	6.7	5.4	2.5
Gastropoda UID	11			4.4	2.1
Total Gastropoda	30	12	20.0	59.9	28.1
Mollusca UID	48			11.6	5.4
Total MOLLUSCA	313	60	100.0	206.8	97.0
Anthozoa (Coral)	4			6.5	3.0
TOTAL INVERTEBRATA	317	60	100.0	213.3	100.0

TABLE A-30. Invertebrates from Trench 7 Unit 138, Feature 217 (Jácana 4)

TAXON	NISP	MNI	Weight (g)
Arca zebra	1		1.2
Anomalocardia brasiliana	1		0.3
Strombus sp.	4	2	12.4
TOTAL INVERTEBRATA	6	2	13.9

TABLE A-31. Invertebrates from Trench 7 Unit 138, Feature 218 (Jácana 4)

TAXON	NISP	MNI	%MNI	Weight (g)	% Weight
Anadara sp.	4	1	5.3	4.5	18.6
Anomalocardia brasiliana	21	15	78.9	12.9	53.3
Arca sp.	1			0.6	2.5
Arca zebra	2	2	10.5	3.2	13.2
Total Bivalvia	28	18	94.7	21.2	87.6
					0.0
Turbininae	1	1	5.3	0.6	2.5
Gastropoda UID	2			0.1	0.4
Total Gastropoda	3	1	5.3	0.7	2.9
					0.0
Mollusca UID				2.3	9.5
					0.0
TOTAL INVERTEBRATA	31	19	100.0	24.2	100.0

TABLE A-32. Invertebrates from Scrape F, General Collection

TAXON	NISP	MNI	Weight (g)
Crassostrea rhizophorae	7	1	2.9
Strombus sp.	1	1	2.4
Gastropoda UID	11+		15.0
TOTALS	19	2	20.3

TABLE A-33. Invertebrates from Scrape F, Grab Collection (FX-F Jácana 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anadara brasiliana	1	1	3.8	10.4	3.7
Anadara ovalis	1	1	3.8	4.1	1.5
Anadara sp.	3			5.5	2.0
Anomalocardia brasiliana	4	2	7.7	3.7	1.3
Arca sp.	2	1	3.8	2.2	0.8
Arca zebra	13	6	23.1	62.4	22.2
Codakia obicularis	1	1	3.8	1.6	0.6
Crassostrea rhizophorae	6	2	7.7	14.9	5.3
Lucina pectinata	8	4	15.4	25.0	8.9
Bivalvia UID	1			6.7	2.4
Total Bivalvia	40	18	69.2	136.5	48.6
Muricidae	1	1	3.8	45.8	16.3
Strombus sp.	10	3	11.5	51.7	18.4
Turbininae	1	1	3.8	2.9	1.0
Turitella variegata	3	3	11.5	6.5	2.3
Gastropoda UID	7			31.6	11.3
Total Gastropoda	22	8	30.8	138.5	49.3
Mollusca UID				5.8	2.1
Total INVERTEBRATA	62	26	100.0	280.8	100.0

TABLE A-34. Invertebrates from Scrape F, Feature 491 (FX-F Jácana 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Anomalocardia brasiliana	2	2	13.3	1.2	1.1
Arca zebra	8	5	33.3	20.0	18.8
Arcidae	5			18.0	16.9
Chione cancellata	1	1	6.7	0.6	0.6
Codakia obicularis	1	1	6.7	0.6	0.6
Crassostrea rhizophorae	3	1	6.7	3.8	3.6
Lucinidae	1	1	6.7	1.3	1.2
Total Bivalvia	21	11	73.3	45.5	42.7
Astraea caelata	1	1	6.7	53.7	50.4
Neritina virginea	1	1	6.7	0.4	0.4
Turitella variegata	2	2	13.3	2.0	1.9
Total Gastropoda	4	4	26.7	56.1	52.7
Mollusca UID				2.7	2.5
Total MOLLUSCA	25	15	100.0	104.3	97.9
Anthozoa (coral)	2			2.2	2.1
TOTAL INVERTEBRATA	27	15	100.0	106.5	100.0

TABLE A-35. Vertebrates from Trench 19 Unit 126 (Jácana 2/4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	30	1	3.72
Mammalia (large)	1	1	1.01
Total Mammalia	31	2	4.73
Aves	2	1	0.68
Tetrapoda UID	19		0.20
TOTAL VERTEBRATA	52	3	5.61

TABLE A-36. Vertebrates from Trench 19 Unit 127 (Jácana 2/4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	12	2	5.55
Rodentia	1		0.11
Mammalia (large)	1	1	1.30
Mammalia (small)	14	1	1.16
Total Mammalia	28	4	8.12
Lutjanidae	3	1	0.55
Scaridae	3		0.26
Sparisoma sp.	3	1	0.59
Osteichthyes UID	2		0.20
Total Osteichthyes	11	2	1.60
Vertebrata UID	4		0.04
TOTAL VERTEBRATA	**43**	**6**	**9.76**

TABLE A-37. Vertebrates from Feature 101, Trench 19 Units 126 and 127 (Jácana 2/4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	1	1	3.00
Mammalia UID	1		0.23
Total Mammalia	2	1	3.23
Sparisoma sp.	1	1	0.10
Osteichthyes UID	1		0.02
Total Osteichthyes	2	1	0.12
TOTAL VERTEBRATA	4	2	3.35

TABLE A-38. Vertebrates from Midden Mound Unit 107 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Isolobodon portoricensis	32	3	23.1	10.95	21.9
Rodentia	5			0.31	0.6
Nesophontes edithae	1	1	7.7	0.28	0.6
Mammalia (large)	1			1.71	3.4
mammalia (small)	7			1.34	2.7
Mammalia (small-med)	5			1.75	3.5
Total Mammalia	51	4	30.8	16.34	32.7
Ardeidae	1	1	7.7	0.80	1.6
Aves	3			0.68	1.4
Total Aves	4	1	7.7	1.48	3.0
Chelonidae	1	1	7.7	8.02	16.1
Colubridae	3	1	7.7	0.67	1.3
Cyclura sp.	1	1	7.7	0.12	0.2
Total Reptilia	5	3	23.1	8.81	17.7
Balistidae	2	1	7.7	1.26	2.5
Centropomus sp.	2			0.17	0.3
Diodon sp.	1	1	7.7	6.52	13.1
Diodontidae	4			0.59	1.2
Epinephelus sp.	3	1	7.7	2.19	4.4
Haemulidae	1			0.13	0.3
Haemulon sp.	1			0.24	0.5
Testudines	5			3.65	7.3
Tetrapoda UID	19			1.13	2.3
Haemulon sp.	2	1	7.7	0.32	0.6
Scaridae	1			0.32	0.6
Scarus sp.	1	1	7.7	3.39	6.8
Serranidae	1			0.13	0.3
Osteichthyes UID	6			1.03	2.1
Total Osteichthyes	49	5	38.5	21.07	42.2
Vertebrata UID	15			2.21	4.4
TOTAL VERTEBRATA	124	13	100.0	49.91	100.0

TABLE A-39. Vertebrates from Trench 19 Unit 151, Strata A, B, and C (Jácana 2/4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	4	1	1.55
Rodentia	1		0.22
Mammalia (large)	2		1.18
Mammalia (med/large)	5		4.68
Mammalia (small)	1		0.22
Total Mammalia	13	1	7.85
Chelonidae	1	1	1.94
Testudines	2		2.74
Total Reptilia	3	1	4.68
Lutjanidae	1		0.07
Sparisoma sp.	2	2	1.22
Osteichthyes UID	1		0.85
Total Osteichthyes	4	2	2.14
Vertebrata UID	9		3.30
TOTAL VERTEBRATA	29	4	17.97

TABLE A-40. Vertebrates from Trench 19 Unit 145, Stratum A (Jácana 4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	4	2	0.65
Mammalia (large)	5		2.60
Total Mammalia	9	2	3.25
Aves	1	1	0.11
Centropristis sp.	1	1	0.56
Diodontidae	1	1	0.18
Sparisoma sp.	1	1	0.13
Osteichthyes UID	5		0.46
Total Osteichthyes	8	3	1.33
TOTAL VERTEBRATA	18	6	4.69

TABLE A-41. Vertebrate Faunal Remains from Trench 19 Unit 145, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Cavia porcellus	2	1	8.3%	0.29	0.7%
Isolobodon portoricensis	20	3	25.0%	6.74	15.7%
Rodentia	3		0.0%	0.73	1.7%
Mammalia (large)	8		0.0%	11.17	26.0%
Mammalia (med/large)	1		0.0%	0.94	2.2%
Mammalia (small)	10		0.0%	1.31	3.0%
Total Mammalia	44	4	33.3%	21.18	49.3%
Fulica sp.	1		0.0%	0.27	0.6%
Aves	2		0.0%	0.24	0.6%
Total Aves	3		0.0%	0.51	1.2%
Colubridae	2	1	8.3%	0.15	0.3%
Testudines	10	1	8.3%	3.41	7.9%
Total Reptilia	12	2	16.7%	3.56	8.3%
Tetrapoda UID	14		0.0%	1.35	3.1%
Carangidae	1		0.0%	0.91	2.1%
Centropomus sp.	3		0.0%	0.41	1.0%
Epinephelus sp.	1		0.0%	2.49	5.8%
Haemulidae	2	2	16.7%	0.33	0.8%
Lutjanidae	1		0.0%	0.68	1.6%
Scarus sp.	2	2	16.7%	5.79	13.5%
Sparisoma sp.	5	1	8.3%	0.91	2.1%
Osteichthyes UID	19		0.0%	2.43	5.7%
Total Osteichthyes	34	5	41.7%	13.95	32.4%
Lamniformes	1		0.0%	0.26	0.6%
Rajiformes	1	1	8.3%	0.35	0.8%
Total Chondrichthyes	2	1	8.3%	0.61	1.4%
Vertebrata UID	35		0.0%	1.83	4.3%
TOTAL VERTEBRATA	144	12	100.0%	42.99	100.0%

TABLE A-42. Vertebrates from Trench 19 Units 145 and 147, Feature 116 (Jácana 2/4)

TAXON	NISP	MNI	Weight (g)
Aves	1	1	0.15
Testudines	3	1	0.96
Diodontidae	1	1	0.18
Lutjanus sp.	4	1	1.97
Sparisoma sp.	1	1	0.70
Osteichthyes UID	1		0.08
Total Osteichthyes	7	3	2.93
Lamniformes	1	1	0.24
Vertebrata UID	11		0.44
TOTAL VERTEBRATA	23	6	4.72

TABLE A-43. Vertebrates from Trench 19 Unit 146, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Cavia porcellus	1	1	10.0	0.11	0.3
Isolobodon portoricensis	12	2	20.0	4.88	13.0
Rodentia	3			0.39	1.0
Mammalia	5			3.31	14.3
Total Mammalia	21	3	30.0	8.69	23.1
Aves	2	1	10.0	0.60	1.6
					0.0
Chelonidae	2	1	10.0	15.08	40.0
Testudines	13			2.30	6.1
Reptilia	1			0.05	0.1
Total Reptilia	16	1	10.0	17.43	46.3
Tetrapoda UID	7			2.42	6.4
Caranx crysos	1	1	10.0	0.33	0.9
Diodontidae	1	1	10.0	0.11	0.3
Gobiomorus dormitor	3	1	10.0	0.75	2.0
Haemulon sp.	1	1	10.0	0.44	1.2
Lutjanidae	2	1	10.0	0.49	1.3
Scaridae	2		1.0	0.20	0.5
Sparisoma sp.	2	1	10.0	0.61	1.6
Osteichthyes UID	17		1.0	2.82	7.5
Total Osteichthyes	29	6	60.0	5.75	15.3
Vertebrata UID	24		1.0	2.78	7.4
TOTAL VERTEBRATA	99	10	100.0	37.67	100.0

TABLE A-44. Vertebrates from Trench 19 Unit 146, Strata D and E (Jácana 2)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	1	1	1.21
Rodentia	3		0.35
Total Mammalia	4	1	1.56
Osteichthyes UID	3		0.56
TOTAL VERTEBRATA	7	1	2.12

TABLE A-45. Vertebrates from Trench 19 Unit 146, Feature 115 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Cavia porcellus	2	1	12.5	0.32	1.4
Isolobodon portoricensis	7	1	12.5	2.35	10.5
Rodentia	6			0.84	3.7
Mammalia (large)	1			0.68	3.0
Total Mammalia	16	2	25.0	4.19	18.7
Colubridae	1	1	12.5	0.07	0.3
Testudines	2	1	12.5	2.78	12.4
Total Reptilia	3	2	25.0	2.85	12.7
Epinephelus sp.	1	1	12.5	0.20	0.9
Lutjanidae	4	2	25.0	7.39	32.9
Serranidae	1			0.17	0.8
Sparisoma sp.	2	1	12.5	1.11	4.9
Osteichthyes UID	8			3.59	16.0
Total Osteichthyes	17	4	50.0	12.91	57.6
Lamniformes	1			0.45	2.0
Vertebrata UID	21			2.48	11.1
TOTAL VERTEBRATA	57	8	100.0	22.43	100.0

TABLE A-46. Vertebrates from Trench 19 Unit 147, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Cavia porcellus	6	2	10.5	1.97	4.5
Isolobodon portoricensis	18	2	10.5	6.41	14.7
Rodentia	1			0.52	1.2
Mammalia (large)	8			3.62	8.3
Mammalia (med/large)	4			2.42	5.5
Mammalia (small/med)	15			6.54	28.8
Total Mammalia	34	2	10.5	13.47	30.9
Aves	4	1	5.3	0.31	0.7
					0.0
Colubridae	1	1	5.3	0.05	0.1
Cyclura sp.	2	1	5.3	0.21	0.5
Emydidae	2	1	5.3	1.88	4.3
Testudines	2	1	5.3	1.73	4.0
Total Reptila	11	5	26.3	4.18	9.6
Tetrapoda UID	57			5.34	12.2
					0.0
Anguilla rostrata	1	1	5.3	0.01	0.0
Calamus sp.	1	1	5.3	0.83	1.9
Caranx sp.	1	1	5.3	0.28	0.6
Diodontidae	3	1	5.3	0.19	0.4
Epinephelus sp.	2	1	5.3	4.20	9.6
Haemulon sp.	1	1	5.3	0.08	0.2
Lutjanus sp.	1	1	5.3	1.80	4.1
Scaridae	4			0.65	1.5
Serranidae	1			0.09	0.2
Sparisoma sp.	8	2	10.5	2.23	5.1
Sphyraena sp.	1	1	5.3	0.25	0.6
Osteichthyes UID	26			2.48	5.7
Total Osteichthyes	50	10	52.6	13.09	30.0
Lamniformes	2	1	5.3	0.41	0.9
Rajiformes	1	1	5.3	0.77	1.8
Total Chondrichthyes	3	2	10.5	1.18	2.7
Vertebrata UID	141			6.37	14.6
TOTAL VERTEBRATA	296	19	100.0	43.63	100.0

TABLE A-47. Vertebrates from Trench 19 Unit 147, Strata D and E (Jácana 2)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	2	1	0.49
Mammalia (small/med)	1		0.33
Mammalia (med/large)	1		0.92
Total Mammalia	4	1	1.74
Vertebrata UID	2		0.21
TOTAL VERTEBRATA	6	1	1.95

TABLE A-48. Vertebrates from Trench 19 Unit 148, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Isolobodon portoricensis	16	2	22.2	7.75	21.2
Mammalia (large)	4			6.90	18.8
Mammalia (small)	11			1.95	5.3
Total Mammalia	31	2	22.2	16.60	45.3
Passeriformes	1	1	11.1	0.06	0.2
Rallidae	5	1	11.1	0.96	2.6
Aves	1			0.46	1.3
Total Aves	7	2	22.2	1.48	4.0
Cyclura sp.	3	1	11.1	0.56	1.5
Emydidae	1	1	11.1	0.71	1.9
Testudines	3			0.41	1.1
Total Reptilia	7	2	22.2	1.68	4.6
Tetrapoda UID	6			1.06	2.9
Centropomus sp.	7			0.14	0.4
Diodontidae	1	1	11.1	0.13	0.4
Epinephelus sp.	2	1	11.1	2.75	7.5
Scaridae	1			0.11	0.3
Sparisoma sp.	1	1	11.1	0.42	1.1
Osteichthyes UID	36			8.56	23.4
Total Osteichthyes	48	3	33.3	12.11	33.1
Vertebrata UID	53			3.69	10.1
TOTAL VERTEBRATA	152	9	100.0	36.62	100.0

TABLE A-49. Vertebrates from Trench 19 Unit 148, Strata D and E (Jácana 2)

TAXON	NISP	MNI	Weight (g)
Mammalia (large)	1		3.40
Anas cf. discors	1	1	0.66
Osteichthyes UID	1		0.06
TOTAL VERTEBRATA	3	1	4.12

TABLE A-50. Vertebrates from Feature 111, Units 148 and 149 (Jácan 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Isolobodon portoricensis	13	3	37.5	6.31	27.5
Rodentia	2			0.29	1.3
Mammalia (large)	4			3.91	17.0
Mammalia (small)	5			0.50	2.2
Total Mammalia	24	3	37.5	11.01	47.9
Aves	3	1	12.5	0.11	0.5
Testudines	8	1	12.5	2.56	11.1
					0.0
Diodontidae	2	1	12.5	0.31	1.3
Epinephelus sp.	1	1	12.5	0.18	0.8
Scaridae	3			0.46	2.0
Serranidae	3			0.63	2.7
Sparisoma sp.	6	1	12.5	2.53	11.0
Osteichthyes UID	24			3.61	15.7
Total Osteichthyes	50	5	62.5	10.39	45.2
Lamniformes	2		0.0	0.48	2.1
Vertebrata UID	23		0.0	1.10	4.8
TOTAL VERTEBRATA	99	8	100.0	22.98	100.0

TABLE A-51. Vertebrates from Trench 19 Unit 149, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Cavia porcellus	1	1	4.5	1.02	1.5
Isolobodon portoricensis	66	4	18.2	13.37	19.6
Rodentia	1			0.03	0.0
Mammalia (large)	3			3.11	4.6
Mammalia (med/large)	27			5.46	8.0
Mammalia (small)	93			5.63	8.2
Total Mammalia	191	5	22.7	28.62	41.9
Columbidae	1	2	9.1	0.53	0.8
Passeriformes	1	1	4.5	0.05	0.1
Aves	3			0.28	0.4
Total Aves	5	3	13.6	0.86	1.3
Cyclura sp.	2	1	4.5	0.22	0.3
Lacertilia	2			0.28	0.4
Emydidae	3	1	4.5	1.19	1.7
Testudines	9			11.51	16.9
Total Reptila	16	2	9.1	13.20	19.3
Tetrapoda UID	6			0.66	1.0
Calamus sp.	1	1	4.5	0.36	0.5
Centropomus sp.	2	1	4.5	1.50	2.2
Diodontidae	2	1	4.5	0.33	0.5
Epinephelus sp.	5	1	4.5	0.95	1.4
Serranidae	1			0.08	0.1
Gobiomorus dormitor	4	1	4.5	0.38	0.6
Lachnolaimus sp.	3	2	9.1	1.43	2.1
Lutjanus sp.	4	2	9.1	3.73	5.5
Scaridae	6			0.95	1.4
Sparisoma sp.	4	2	9.1	1.12	1.6
Osteichthyes	103			11.03	16.2
Total Osteichthyes	135	11	50.0	21.86	32.0
Lamniformes	1	1	4.5	0.22	0.3
Vertebrata UID	86			3.86	5.7
TOTAL VERTEBRATA	439	22	100.0	68.26	100.0

TABLE A-52. Vertebrates from Trench 19 Unit 149, Strata D and E (Jácana 2)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Cavia porcellus	1	1	16.7	0.56	3.9
Isolobodon portoricensis	13	1	16.7	6.69	46.3
Mammalia (small)	6		0.0	1.07	7.4
Total Mammalia	20	2	33.3	8.32	57.6
Aves	2	1	16.7	0.19	1.3
			0.0		0.0
Calamus sp.	1	1	16.7	0.10	0.7
Carangidae	1	1	16.7	0.54	3.7
Serranidae	2	1	16.7	4.17	28.9
Osteichthyes UID	12		0.0	1.12	7.8
Total Osteichthyes	16	3	50.0	5.93	41.1
TOTAL VERTEBRATA	38	6	100.0	14.44	100.0

TABLE A-53. Vertebrates from Trench 19 Unit 150, Stratum A (Jácana 4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	9	1	0.17
Rodentia	5		0.14
Mammalia (large)	3		2.84
Total Mammalia	17	1	3.15
Vertebrata UID	13		0.22
TOTAL VERTEBRATA	30	1	3.37

TABLE A-54. Vertebrates from Trench 19 Unit 150, Strata B and C (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight(g)	%Weight
Cavia porcellus	4	1	5.9	1.43	2.4
Isolobodon portoricensis	28	3	17.6	7.99	13.4
Rodentia	3			0.83	1.4
Mammalia (large)	2			4.18	7.0
Mammalia (med/large)	13			4.93	8.3
Mammalia (small)	27			3.98	6.7
Total Mammalia	77	4	23.5	23.34	39.1
Passeriformes	1	1	5.9	0.07	0.1
Aves	3			0.15	0.3
Total Aves	4	1	5.9	0.22	0.4
Colubridae	5	1	5.9	0.56	0.9
Emydidae	2	1	5.9	4.03	6.8
Testudines	15			4.59	7.7
Total Reptilia	22	2	11.8	9.18	15.4
Tetrapoda UID	13			1.40	2.3
Anguilla rostrata	1	1	5.9	0.10	0.2
Carangidae	2	1	5.9	0.36	0.6
Caranx sp.	1	1	5.9	0.69	1.2
Centropomus sp.	1	1	5.9	0.62	1.0
*Diodon*sp.	1	1	5.9	10.50	17.6
Diodontidae	2			0.16	0.3
Gobiomorus dormitor	1	1	5.9	0.07	0.1
Lutjanus sp.	5	1	5.9	1.37	2.3
Mycteroperca sp.	1	1	5.9	0.83	1.4
Scaridae	3			0.36	0.6
Sparisoma sp.	3	1	5.9	1.01	1.7
Sphyraena sp.	3	1	5.9	0.60	1.0
Osteichthyes	75			5.49	9.2
Total Osteichthyes	99	10	58.8	22.16	37.1
Vertebrata UID	51			3.37	5.6
TOTAL VERTEBRATA	266	17	100.0	59.67	100.0

TABLE A-55. Vertebrates from Trench 19 Unit 150, Strata D and E (Jácana 2)

TAXON	NISP	MNI	Weight (g)
Cavia porcellus	3	1	0.89
Isolobodon portoricensis	11	1	3.42
Mammalia (small)	5		0.57
Total Mammalia	19	2	4.88
Aves	2		0.27
Colubridae	1	1	0.10
Diodon sp.	1	1	4.14
Mycteroperca sp.	1	1	0.32
Osteichthyes UID	4		0.76
Total Osteichthyes	6	2	5.22
Vertebrata UID	22		0.20
TOTAL VERTEBRATA	50	5	10.67

TABLE A-56. Vertebrates from Feature 108, Trench 19 Unit 150 (Jácana 4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Cavia porcellus	1	1	11.1	0.83	2.6
Isolobodon portoricensis	8	1	11.1	3.39	10.7
Mammalia (large)	1			0.77	2.4
Mammalia (small)	35			2.86	9.1
Total Mammalia	45	2	22.2	7.85	24.9
Colubridae	1			0.11	0.3
Emydidae	2	1	11.1	3.35	10.6
Testudines	22			5.17	16.4
Total Reptilia	25	1	11.1	8.63	27.4
Tetrapoda UID	28			2.15	6.8
					0.0
Carangidae	1			0.28	0.9
Diodon sp.	3	1	11.1	4.54	14.4
Diodontidae	2			0.45	1.4
Haemulon sp.	1	1	11.1	0.13	0.4
Lutjanidae	2	1	11.1	0.52	1.6
Serranidae	1	1	11.1	0.68	2.2
Sparisoma sp.	4	2	22.2	2.43	7.7
Osteichthyes UID	18			2.80	8.9
Total Osteichthyes	32	6	66.7	11.83	37.5
Vertebrata UID	21			1.09	3.5
TOTAL VERTEBRATA	151	9	100.0	31.55	100.0

TABLE A-57. Vertebrates from N. Batey Trench Unit 153 Levels 1 and 2 (Jácana 4/5)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	1	1	0.51
Rodentia	1		0.09
Mammalia (small)	4		0.72
Total Mammalia	6	1	1.32
Serranidae	1	1	6.29
Osteichthyes UID	6		0.80
Total Osteichthyes	7	1	7.09
Vertebrata UID	2		0.22
TOTAL VERTEBRATA	15	2	8.63

TABLE A-58. Vertebrates from N. Batey Trench Unit 153, Levels 3-6 (Jácana 4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	4	1	4.58
Mammalia (small)	3		0.86
Total Mammalia	7	1	5.44
Emydidae	1	1	1.71
Testudines	1		0.03
Total Reptilia	2	1	1.74
Centropomus sp.	2	1	1.05
Gobiomorus dormitor	2	1	0.47
Osteichthyes UID	4		0.94
Total Osteichthyes	8	2	2.46
TOTAL VERTEBRATA	17	4	9.64

TABLE A-59. Vertebrates from Trench 7 Unit 138 (Jácana 2/4)

TAXON	NISP	MNI	%MNI	Weight (g)	%Weight
Isolobodon portoricensis	32	3	27.3	8.52	24.9
Mammalia (large)	1		0.0	0.61	1.8
Mammalia (small)	11		0.0	1.54	4.5
Total Mammalia	44	3	27.3	10.67	31.2
			0.0		0.0
Ardeidae	2	1	9.1	1.78	5.2
Aves	1		0.0	0.06	0.2
Total Aves	3	1	9.1	1.84	5.4
			0.0		0.0
Cyclura sp.	7	1	9.1	1.83	5.3
Lacertilia	3		0.0	0.52	1.5
Colubridae	1		0.0	0.06	0.2
Chelonidae	3		0.0	1.94	5.7
Testudines	3		0.0	1.68	4.9
Total Reptilia	17	1	9.1	6.03	17.6
			0.0		0.0
Vertebrata UID	28		0.0	2.35	6.9
Tetrapoda UID	10		0.0	1.51	4.4
			0.0		0.0
Carangidae	1	1	9.1	0.76	2.2
Centropomus sp.	2	1	9.1	0.80	2.3
Diodontidae	8	1	9.1	1.43	4.2
Lutjanidae	1		0.0	1.21	3.5
Scaridae	4	1	9.1	0.49	1.4
Serranidae	1	1	9.1	1.48	4.3
Sparisoma sp.	4	1	9.1	2.09	6.1
Osteichthyes UID	28		0.0	3.59	10.5
Total Osteichthyes	49	6	54.5	11.85	34.6
			0.0		0.0
TOTAL VERTEBRATA	151	11	100.0	34.25	100.0

TABLE A-60. Vertebrates from Trench 7 Unit 138, Feature 217 (Jácana 4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	2	1	2.32
Tetrapoda UID	3		0.32
Scaridae	1	1	0.07
TOTAL VERTEBRATA	6	1	2.71

TABLE A-61. Vertebrates from Trench 7 Unit 138, Feature 218 (Jácana 4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	1	1	0.19
Osteichthyes UID	1		0.07
TOTAL VERTEBRATA	2	1	0.26

TABLE A-62. Vertebrates from Trench 12 Unit 142 (Jácana 2/4)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	2	1	0.09
Aves	2	1	0.12
Chelonidae	9	1	11.60
Testudines	22		3.42
Cyclura sp.	2	1	0.35
Total Reptilia	33	2	15.37
Diodontidae	3		0.43
Elops saurus	1		0.07
Epinephelus sp.	4	1	2.48
Lutjanidae	3	1	1.13
Thunnus sp.	2	1	0.20
Osteichthyes UID	23		1.58
Total Osteichthyes	36	3	5.89
Vertebrata UID	70		1.79
TOTAL VERTEBRATA	143	5	23.26

TABLE A-63. Vertebrates from Trench 12 Unit 144 (Jácana 2)

TAXON	NISP	MNI	Weight (g)
Isolobodon portoricensis	5	2	0.69
Mammalia (small)	1		0.11
Total Mammalia	6	2	0.80
Ardeidae	1	1	0.97
Aves	2		0.20
Total Aves	3	1	1.17
Tetrapoda UID	2		0.08
Centropomus sp.	1		0.32
Epinephelus sp.	3	1	0.39
Osteichthyes UID	4		0.45
Total Osteichthyes	8	1	1.16
Vertebrata UID	32		0.87
TOTAL VERTEBRATA	51	4	4.08