

JAGUAR BREEDING PROGRAM

Costa Rica, Central America

Contributing Author: Scott Weldy, DVM

Kristi Krauseand, DVM, Karla Costa-Lugo, DVM
Serrano Animal and Bird Hospital – Lake Forest, CA



A 4 year old male jaguar was evaluated to be part of a breeding program in Costa Rica. This was to be the first jaguar breeding program formally established in Costa Rica. Since the male and female jaguars being used to start the program had been observed breeding in the weeks prior to evaluation, it was decided to only evaluate the male, thus minimizing the risk to a potentially pregnant female.

The jaguar was immobilized with 400 mg Ketamine + 4.5 mg Medetomidine IM. He was recumbent and approachable at 8 minutes and intubated with a 57 mm endotracheal tube. A blood sample was taken from the medial saphenous vein. On physical exam, the right upper canine tooth was fractured with pulp exposure. There was no swelling, pain, or inflammation associated with the fractured tooth. The lower right canine was also fractured and discolored, but there was no pulp exposure. The upper left canine tooth had a small area of enamel erosion on the caudal surface of minimal significance. The heart and lungs

auscultated within normal limits. Abdominal palpation was normal, with no organomegally or masses palpated. His testicles palpated smooth and symmetrical. The penis was exteriorized and appeared normal for a jaguar.

An AVID microchip was implanted in the intrascapular region. 1.5 liters of Lactated Ringer's solution was given subcutaneously. 1 gram ampicillin, 0.5 cc Vitamin B12, and 5 mg diazepam were given subcutaneously 43 minutes after the initial injection. Atipamezole 22.5mg IM was given at 53 minutes after the initial injection. The jaguar was sternal 9 minutes later.



VetScan i-STAT results

Na	150 (mmol/L)
K	3.6 (mmol/L)
Cl	123 (mmol/L)
BUN	33 (mg/dL)
Glu	125 (mg/dL)
Creat	1.6 (mg/dL)
HCT	44%

CASE STUDY WINNER

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Summary

This evaluation using the i-STAT established a foundation for future assessments of health in a population of endangered and revered native species in a country hesitant to allow outside assistance. The use of simple, reproducible and economical diagnostic techniques and equipment is paramount in establishing open policies and communication in evaluating and standardizing the care of animals in any captive situation. The i-STAT was invaluable in aiding the success in this endeavor; so much that the Ministry of the Environment, Energy, and Technology contacted the director of one of the participating breeding facilities to inquire about the success of the medical evaluation and establishment of future breeding programs.



CASE STUDY WINNER

Vetscan i-STAT 1 Cartridge Test Menu

The VetScan i-STAT 1 uses a wide range of disposable single-use cartridges that contain the necessary reagents to provide reference lab quality results while improving efficiency throughout the animal health continuum of care.

	CG4+	CG8+	G	Crea	E3+	6+	CHEM8+	EC8+	ACT Celite®	cTnl
Hematology	Hematocrit (Hct)	•			•	•	•	•		
	Hemoglobin (Hgb)	•			•	•	•	•		
Chemistry	Blood Urea Nitrogen (BUN)					•	•	•		
	Creatinine			•			•			
	Ionized Calcium (iCa)		•				•			
	Glucose (Glu)		•	•		•	•	•		
Electrolytes	Chloride (Cl)*				•	•	•	•		
	Sodium (Na ⁺)		•		•	•	•	•		
	Potassium (K ⁺)		•		•	•	•	•		
Acid Base	pH	•	•					•		
	PCO ₂	•	•					•		
	HCO ₃	•	•					•		
	TCO ₂	•	•				•	•		
	Anion Gap						•	•		
	Base Excess	•	•					•		
Blood Gas	PO ₂	•	•							
	sO ₂	•	•							
Specialty	Lactate	•								
	ACT Celite								•	
	Cardiac Troponin I (cTnl)									•

*Chloride test on the E3+ cartridge is only available on the VetScan i-STAT 1 analyzer.

