

# Care Sheet for the Parson's Chameleon *Calumma parsonii parsonii*



By Petr Necas & Bill Strand

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Legend	Sub-legend	Description
Taxonomy	Taxon	<i>Calumma parsonii</i>
	Common Names	Parson's Chameleon (English)
	Original name	<i>Chamaeleo parsonii</i>
	Author	Cuvier, 1824
	Original description	Rech. Ossem. foss., 2nd ed., 5 (2): 269; pl. XVI, figs. 30 - 31.
	Terra typica	Not given
	Typus	MHNP; lost
	Taxonomy	Although mentioned by Parsons already in 1768 as <i>Chamaeleon rarissima</i> , its formal description was accomplished by Cuvier in 1824 only, the specific epithet referring to the man who first mentioned it.
		A polytypic species with two subspecies: the nominotypical one and <i>Calumma parsonii cristifer</i> (Methuen & Hewitt, 1913) from E Madagascar (around Andasibe, Analamazaotra and Mantadia).
		Historically, many synonyms were introduced, such as <i>Chamaeleo madecasseus</i> , <i>madecassus</i> , <i>parsonii</i> , <i>parsonii</i> , <i>parsonii</i> , <i>partonii</i> (partly as typographical errors). Due to its polymorphism, several forms without any taxonomical relevance are distinguished in pet trade and captive husbandry, all referring to the typical coloration of adult males: yellow lip, orange eye, yellow giant, green giant.

Member of the genus *Calumma*.



Male "Yellow-lipped"



Male "Orange-eyed"



Male "Yellow Giant"



Female "Yellow-lipped"

Legend	Sub-legend	Description
Life Space	Range	Distributed along the E coast of Madagascar from Ranomafana in the south to Anjanaharibe Sud in the north and the Masoala. It has also been recorded from Manongarivo in NW Madagascar and on Nosy Boraha.
	Altitude	45-230m a.s.l., typically in lowland rainforest areas but there are also high elevation populations reaching 1100-1200m a.s.l. in Masoala.
	Macro-habitat	Typically tropical lowland rain forests with highland populations in mid elevation rain forest at Masoala, it often accepts coffee plantations. Typically, its localities lay near though not in immediate vicinity of rivers, especially true for young specimens.
	Micro-habitat	Trees of the rain forest, agricultural plants (esp. coffee).
	Perching Height	5-20m above ground in tree canopies, babies in lower bushes
	Daily Activity	Whole day in the shade of big trees, Morning and late afternoon 1-2 hour basking on a sun exposed branch, Sleeping within canopies of trees, In case of rain, hiding in the middle of tree canopies close to trunks Brumation period of 2-4 months in the coldest months of the year, spent sleeping motionless on a branch in the canopies of big trees.
	IUCN Status	Nearly Threatened, threatened mainly due to habitat loss and commercial collection for pet trade
	Conservation	Listed as Category I, Class II protected species in Malagasy law, which prohibits unauthorized collection. Living in many protected areas, where the collection is prohibited.
	CITES	CITES Ap. II

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Legend	Sub-legend	Description
Climate	Climate Type	Tropical humid climate with above 2000mm yearly precipitation
	Dry seasons	April to October
	Rainy seasons	November to March
	Temperature	The climate of the inhabited region is subject to a decent difference between summer and winter (reverse than on northern hemisphere) and is in general rather cold (colder than expected) Summer Temperatures: 26-28°C (79-82°F) at daytime (5-7°C less in shade), at night 15-17°C (59-63°F) Winter Temperatures: 20-23°C (79-82°F) at daytime (3-5°C less in shade), at night 10-12°C (50-53°F)
	Humidity	Up to 100 % at night all year long with intense fog every night, around 60% at daytime



Female 'Yellow-lipped'



Male 'Yellow-lipped'

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Legend	Sub-legend	Description
Life Cycle	Parity	Oviparous - egg laying
	Gestation period	Approx. 3-5 months, depending on the temperatures and size, pregnancy usually every two years
	Egg laying site	Eggs are deposited at the beginning of cold period (June-July) Egg deposition sites are situated on the ground Eggs are deposited in a hole up to 75% body length
	Clutch size	In the wild: 20-30, In captivity up to 60
	Incubation period	13-26 months depending on temperatures and temperature regime (the warmer the shorter) best is to simulate both moisture and temperature natural cycles, the eggs should undergo very cold phase down to 55°F in winter and up to 73°F in summer. Moisture level of the substrate should reflect the rainy and dry periods in the wild.
	Hatching period	December to January
	Size at hatch	Approx. 11cm (4g)
	Maturity reached	At 2-3 years
	Maximum size reached	At 5 years
	Mating period	January to March
	Activity	Active throughout warm periods of the year Brumation period in cold months can last from 2 to 6 months: period of reduced activity and a reduction or cessation of food intake



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Legend	Sub-legend	Description
Morphology	General	One of the largest and the heaviest chameleon species, equipped with all typical chameleon features like chamaeleodactylous feet, prehensile tail, independently moving eyes in lid turrets, long extendable tail, skin capable of color change, The head with massive flat casque, rough crests consisting of enlarged warty or pointed scales form a bifurcated false horn in males.
	Size	Males usually around 60cm (23 in) and 500-700g, maximum size reported is 85cm (33 in), females significantly smaller
	Sexual dimorphism	Males possess higher casques, higher and more pronounced crests and a bifurcated rostral false horn Excited males show colors typical for the color forms, females are usually uniformly green. Males have a swollen tail base
Diet	Diet size	Invertebrates usually under 1 inch size, rarely over 2 inch size
	Main diet	Hymenopterans (bees and wasps) Dipterans (flies) Lepidopterans (butterflies, moths and their caterpillars) Coleopterans (beetles) Orthopterans (locusts, grasshoppers, mantis)
	Omitted widely available diet items in the wild	Black beetles
	Special/occasional diet items in the wild	Snails and small vertebrates like small birds and geckos
	Additionally digested items in wild	Pollen Naturally Occurring Dust

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Legend	Sub-legend	Description
Health issues	Internal parasites	Roundworms, Tapeworms, Flukes, Coccidia Treatment: Not necessary if invasion is small. If heavy, consult veterinarian Symptoms: heavy breathing, visible ribs, gaping, sitting with head up, bubbles in throat Cause: Weakened immune system due to stress or incorrect husbandry. Often a result of too high humidity at daytime combined with high temperatures Treatment: Antibiotics to be prescribed by a veterinarian
	RI (Respiratory infection)	Symptoms: white cheese-like deposits along the jaws, swollen jaws Cause: Arises often in captivity as a result of injuries to jaws and mucous in combination with husbandry issues Treatment: Antibiotics to be prescribed by a veterinarian
	Mouthrot (Stomatitis; Gingivitis ulcerosa)	Symptoms: casque and head deformities, rubber jaw, broken bones of extremities, fractures of ribs Cause: A captive condition resulting from an imbalance of vitamin D3 supplementation, lack of Calcium + magnesium in food and/or insufficient UVB exposure Treatment: proper diet and UVB exposure. In heavy cases - veterinarian assistance
	MBD (Metabolic Bone Disease)	Symptoms: Heavy body, inactivity, swollen cheeks and casques, puffy extremities Behavior: Picky eating, slower moving, puffy belly resting on or overflowing branch Cause: Overfeeding Treatment: reduce diet
	Obesity	Symptoms: Inability to lay eggs Cause: Arises often in captivity as a result of overfeeding or inadequate care Treatment: Oxytocin and supportive measures administered by a veterinarian. Often necessary to solve surgically including sterilization (this can lead in masculinization of the female's appearance)
	Dystocia (Egg retention)	Symptoms: Swollen turrets or their parts, closed eyes, eye opening blocked by transparent or milky pus Cause: Arises in captivity often as a result of lack or overdose of vitamins and misting on the head of the chameleon Treatment: Antibiotics to be prescribed by a veterinarian
	Eye infections	

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Legend	Sub-legend	Description
Caging	Caging type	Individual caging is recommended Cohabiting of young juveniles up to 6 months of age possible in densely planted cages with close observation. Cohabiting of adults not recommended If kept individually, visual contact of at least 3m from each other simulates a natural interaction
	Cage conditions	Day Temperatures: 77-80°F (25-27°C) with basking spot up to 86°F/ 30°C Night Temperatures: under 68° (20°C). Can be lower in acclimated animals Humidity levels: nighttime up to 100% towards morning, daytime around 60% UVI: 5-7 at basking spot
	Cage size	Babies to 6 months: 16" x 16" x 30" or 24" x 24" x 48" preferred Adults to 400 grams: 4' x 2' x 4' H Adults beyond 400 grams: 6' x 3' x 6'H. Larger suggested
	Cage type	Full screen cage or hybrid screen/solid sides for temperature/humidity retention
	Cage interior	Dense foliage from live plants and extensive network of natural branches (1/2" dia) Freely exposed horizontal branch for basking in safe distance (head and body length from the heat source) Bottom with no special requirements, can be from bare to bioactive
	Lighting	Light bulb white light = 12 hours per day Heat bulb white light (not red) = according to surrounding temperatures Linear UVB bulb = 12 hours per day Nighttime: No heat/light source - including blue and red bulbs! Fog (ultra-sonic humidifier) at night (from 1AM till dawn) Morning Mister: Short misting session (2 minutes) 30 minutes before lights go ON; Purpose is to create a layer of dew on leaves for chameleon to find when it wakes up. Afternoon Rain Shower: During rainy season simulate rain shower by switching off heat lamps for 30 minutes and then run misters a couple minutes; Do not bring heat lamp back on for 30 minutes after shower is over Evening Misting: Wait until all lights are off and chameleon has settled in. Run mister for two minutes to raise humidity Dripper: best in the morning hours and into afternoon Use cool or ambient temperature water. Do NOT heat or warm water. Do NOT "bathe" or "soak" your chameleon. Provide dense plant cover so chameleon can choose to get in or out of misting action.
	Water management	

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Legend	Sub-legend	Description
Feeding in captivity	Food	General rule: diet as variable as possible Overfeeding risk: Usually not an issue, but possible. Consult "Obesity" in health section for symptoms. Food items size: preferable smaller size; 1/2 inch or smaller To feed: flies, crickets, roaches, superworms, hornworms, fly larvae, wax worms and wax moths, silkworms and silk moths Food to consider: wild bees, small snails
	Supplements	Indoor: Calcium without D3: each meal Pollen: each meal Multivitamin mix: biweekly Calcium with D3: biweekly (Ensure proper UVB exposure as specified)  Outdoor: Calcium without D3: each meal Pollen: each meal Multivitamin mix: biweekly
	Hydration	Hydration is to be facilitated by combination of night fogging, morning and evening misting and daytime dripping. Urates to be assessed and in case of deviations, hydration methods to be adjusted



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Legend	Sub-legend	Description
Reproduction in captivity	Egg deposition	The female digs a tunnel and lay the eggs at its end The tunnel is covered with substrate
	Laybin	Artificial approach: prepare a laybin – a large container filled with 20-25 cm deep moist (not wet) sterilized substrate (sand, sand with soil, coconut soil etc.) Semi-naturalistic approach: Take a 4-5 gallon glass jar, fill it with 15 cm of substrate (same as above, best fine sand) Naturalistic approach: allow plant pots with living plants to be the laying opportunities for the females
	Way of incubation	Artificial approach: eggs are taken out of egg deposit place and transferred to containers with special substrate (see below), filled in 2-4cm layer, eggs are positioned separately from each other in shallow holes so that 1/3 to 1/2 of the egg is above its surface Semi-naturalistic approach: eggs are kept where they have been laid in a group, water is added if necessary Naturalistic approach: eggs are kept where they have been laid in a group, the plant is watered as usual
	Incubation substrate	Artificial: Vermiculite, Perlite Semi-natural: sterilized sand, soil, coconut soil Natural: soil in the plant pot
	Incubation	Incubation has been the trickiest part of working with <i>Calumma parsonii</i> and, with current experience within the community, can last between 18 and 24 months. A double diapause has been reported to provide success. Incubation temperatures range from 75°F down to 55°F during diapause.

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