



# Cactus Conservation Institute

## **Peyote post-harvest regrowth –**

### **Control group**

**Summary of our observations –  
after four years**



Untouched *Lophophora williamsii* in the regrowth study site population

Concerning data on regrowth involving multiple pups:

1) There is not necessarily a direct 1:1 correspondence between sequential figures for individual pups within a single plant.

2) It was not uncommon for some or all pups to be partly or entirely covered so some photos may reflect the pre-uncovery state.

Images of the tags can be viewed via the links in the column for the tag numbers and images of the actual plants can be viewed using the links in the column headed "Number of crowns".

A number of our tags and plants were completely buried and hence provided missing data in 2009. In 2010-2012, thanks to the use of a high-powered metal detector we located all of our tags, stakes and plants unless they were totally missing from the study site.

Data concerning the control group can be found below.

*nd* – No data.  
— – Missing data

## Control group

Plant Number	Number of crowns	Number of ribs	Diameter of crowns (in cm)	Comments
<b>2008</b>	<b>22 Nov. 2008</b>	<b>22 Nov. 2008</b>	<b>22 Nov. 2008</b>	
<b>2009</b>	<b>7 Mar. 2009</b>	<b>missed 2009 data</b>	<b>7 Mar. 2009</b>	
<b>2010</b>	<b>6 Mar. 2010</b>	<b>6 Mar. 2010</b>	<b>6 Mar. 2010</b>	
<b>2011</b>	<b>15 Mar. 2011</b>	<b>15 Mar. 2011</b>	<b>15 Mar. 2011</b>	
<b>2012</b>	<b>13 Mar. 2012</b>	<b>13 Mar. 2012</b>	<b>13 Mar. 2012</b>	
<b>151</b>	2 2 2 4 3	8, 8 — 8, 8 9*, 8, 7, 9 7, 5, 6	3.8, 4.3 3.5, 4.7 3.0, 2.7 4.1*, 1.8, 2.0, 2.2 2.7, 2.1, 2.3	Both crowns broken off by hogs. Replanted 2010. See details below concerning control plant 151.
<b>152</b>	1 1 1 1 1	8 — 8 8 8	3.7 3.8 3.4 4.2 4.8	Post-uncovery photo missed in 2011.
<b>153</b>	1 1 1 1 1	8 — 8 8 8	3.5 3.8 3.9 4.2 4.8	
<b>154</b>	4 (+4 pups) 4 (+4 pups) 9 9 8	13, 13, 13, 8 — 13x3, 7x1, 8x4 13x3, 6, 8x3, 9, 8 13x3, 8x2, 7, 8, 7	3.4, 5.0, 6.1, 5.0, 3.2, 5.8, 6.3, 5.6 6.1, 5.1, 5.5, 3.1, 2.0, 2.2, 1.9, 1.7 6.5, 6.0, 5.5, 1.1, 2.5, 3.6, 2.0, 2.3, 2.6 5.5, 5.5, 5.5, 3.5, 2.3, 2.7, 2.8, 3.0	9th crown was not measureable
<b>155</b>	1 1 1 1 1	8 — 8 8 8	4.3 4.8 4.5 4.5 5.3	
<b>156</b>	2 2 2 2	8, 8 — 8, 8 8, 8	4.3, 4.9 4.8, 4.7 4.4, 4.8 4.8, 4.8	

	2	8, 8	5.3, 5.0	
<b>157</b>	1	8	4.8	
	1	—	5.5	
	1	8	4.6	
	1	8	5.2	
	1	8	5.5	
<b>158</b>	1	8	5.7	
	1	—	5.8	
	1	11	4.9	
	1	13	5.8	
	1	11	5.7	
<b>159</b>	1	8	4.7	
	1	—	5.0	
	1	12	4.3	
	1	13	4.8	
	1	10	4.8	
<b>160</b>	1	13	4.7	
	1	—	5.2	
	1	12	4.9	
	3	13, 6, 7	5.3, 0.7, 0.8	
	2	13, 6	4.8, 1.8	
<b>161</b>	1	8	5.1	Tag & plant not photographed in 2011 Tag & plant not photographed in 2012
	1	—	5.2	
	1	9	4.7	
	1	9 (transition)	5.5	
	1	8	5.0	
<b>162</b>	1	8	4.0	
	1	—	5.2	
	1	8	4.4	
	1	8	5.6	
	1	8	5.8	
<b>163</b>	1	13	6.1	
	1	—	6.5	
	1	13	6.4	
	1	13	7.0	
	1	10	5.8	
<b>164</b>	1	13	7.4	2 new pups not measurable.
	1	—	7.4	
	7	13, 7, 6, 7, 5	6.8, 2.2, 1.8, 1.6, 1.0	
	6	13, 8, 8, 8, 8, 8	7.0, 1.8, 2.5, 2.5, 2.9, 2.5	
	6	13, 10, 9, 6, 8, 10	6.0, 2.5, 2.7, 3.0, 2.8, 0.8	
<b>165</b>	3	8, 8, 8	5.8, 3.5, 3.2	
	3	—	5.6, 3.9, 3.8	
	3	13, 7, 8	4.7, 3.1, 3.1	
	4	13, 8, 8, 7	5.7, 1.8, 3.9, 3.5	
	2	13, 7	5.3, 2.1	
<b>166</b>	1	13	6.0	
	1	—	5.6	

	3	13, 7, 7	5.2, 1.7, 1.7	
	3	13, 8, 8	6.1, 2.5, 2.6	
	3	13, 7, 7	6.0, 2.8, 3.0	
<b>167</b>	2	13, 10	4.2, 5.3	
	2	—	5.3, 5.9	
	2	13, 11	4.8, 5.5	
	2	13, 10	5.2, 6.1	
	2	13, 10	5.1, 6.2	
<b>168</b>	2	10, 11	5.2, 5.1	Appeared diseased in March; found dead in July 2010.  No trace in 2012.
	2	—	5.3, 4.7	
	1 (0)	9 ( <i>nd</i> )	3.9 (March) [dead (July)]	
	0	<i>nd</i>	<i>nd</i>	
	0	<i>nd</i>	<i>nd</i>	
<b>169</b>	1	8	3.2	
	1	—	4.7	
	1	12	3.9	
	1	13	4.0	
	1	13	4.5	
<b>170</b>	1	10	5.2	
	1	—	5.6	
	1	13	5.6	
	1	13	5.0	
	1	13	5.2	
<b>171</b>	1	13	7.5	
	1	—	7.0	
	1	13	6.1	
	1	13	7.0	
	1	13	7.0	
<b>172</b>	1	13	5.0	Hogs moved tag; plant was OK.
	1	—	5.5	
	1	12	5.0	
	1	13	5.4	
	1	13	5.0	
<b>173</b>	1	8	4.8	
	1	—	4.9	
	1	8	4.6	
	1	8	5.3	
	1	8	5.5	
<b>174</b>	1	10	5.2	
	1	—	5.9	
	1	12	5.2	
	1	13	6.5	
	1	13	6.0	
<b>175</b>	1	8	3.6	
	1	—	4.1	
	1	8	3.1	

	1	8	4.0	
	1	8	3.5	
<b>176</b>	1	8+ (transition)	5.0	
	1	—	5.0	
	1	13	4.7	
	1	13	5.5	
	1	13	5.0	
<b>177</b>	1	8	6.0	Dead. Compare to July 2010 photo of #168.
	1	—	5.2	
	0	<i>nd</i>	<i>nd</i>	
	0	<i>nd</i>	<i>nd</i>	
	0	<i>nd</i>	<i>nd</i>	
<b>178</b>	1	13	5.8	
	1	—	5.9	
	1	13	5.8	
	1	13	6.2	
	1	13	6.7	
<b>179</b>	1	8	4.5	
	1	—	4.2	
	1	8	3.3	
	1	8	4.3	
	2	uncountable, 5	4.0, 1.5	
<b>180</b>	1	13	7.2	12 ribs with another intercalating from base. Plant blooming!
	1	—	7.3	
	1	12	6.3	
	1	13*	7.4	
	1	13	7.5	
<b>181</b>	1	5	2.5	
	1	—	2.9	
	1	5	2.8	
	1	5	3.2	
	1	7	3.2	
<b>182</b>	1	8 (barely)	2.8	Ribs not countable. Plant stepped on (by ungulate?).
	1	—	4.0	
	1	7	3.2	
	1	<i>nd</i> *	4.1	
	0	<i>nd</i>	<i>nd</i>	
<b>183</b>	1	8	3.8	Hogs
	1	—	4.2	
	<i>nd</i>	<i>nd</i>	<i>nd</i>	
	0	<i>nd</i>	<i>nd</i>	

	0	<i>nd</i>	<i>nd</i>	
<b>184</b>	1	8	4.0	
	1	—	4.7	
	1	8	3.7	
	1	8	4.2	
	1	8	4.6	
<b>185</b>	1	5	2.7	
	1	—	3.0	
	1	6	2.5	
	1	9	3.6	
	1	8	3.7	
<b>186</b>	3	8, 8, 8	3.6, 2.4, 3.0	
	2	—	3.8, 2.1, <i>nd</i>	
	3	6, 7, 9	1.0, 1.9, 3.9	
	3	10, 5, 7	4.8, 1.6, 2.4	
	3	10, 5, 8	5.1, 2.0, 2.8	
<b>187</b>	2	8, 8	4.3, 5.0	
	2	—	4.5, 5.0	
	2	11, 9	4.7, 4.6	
	2	8, 10	5.2, 5.8	
	2	8, 8	5.2, 5.7	
<b>188</b>	1	8	4.4	
	1	—	4.7	
	1	8	4.4	
	1	8	5.0	
	1	8	5.3	
<b>189</b>	1	8	3.6	
	1	—	4.0	
	1	8	3.0	
	1	8	4.6	
	1	8	4.0	
<b>190</b>	2	13, 13	6.4, 6.0	
	2	—	5.8, 5.5	
	2	13, 13	6.0, 5.0	
	2	13, 13	6.8, 6.1	
	2	13, 13	6.5, 6.0	
<b>191</b>	1	8	3.8	
	1	—	3.3	
	1	8	3.0	
	1	8	4.3	
	1	8	4.5	
<b>192</b>	1	5	2.6	
	1	—	2.8	
	1	5	2.1	
	1	5	3.3	
	1	5	3.5	
<b>193</b>	3	10, 10, 10	4.5, 4.5, 5.0	
	3	—	4.0, 4.4, 4.7	
	3	10, 9, 10	3.5, 3.7, 4.2	
	3	10, 10, 10	5.0, 4.5, 4.5	
	3	10, 10, 10	5.0, 4.8, 4.7	
<b>194</b>	2	8, 8	4.1, 3.2	
	2	—	3.9, 3.3	
	2	8, 8	2.2, 3.2	

	2	8, 8	4.2, 3.6	
	2	8, 8	3.4, 2.9	
<b>195</b>	3	8, 8, 13	4.4, 4.0, 3.0	
	4	—	4.1, 1.8, 3.7, 2.9	
	4	12, 8, 8, 5	3.8, 2.1, 3.3, 1.3	
	4	13, 5, 8, 8	5.0, 1.7, 4.0, 3.0	
	4	10, 5, 8, 8	4.2, 1.5, 3.4, 2.9	
<b>196</b>	1	8	3.0	
	1	—	3.0	
	1	8	2.5	
	1	8	3.6	
	1	8	3.4	
<b>197</b>	1	10	4.9	Tag not photographed in 2009.
	2	—	4.5, 1.2	
	3	9, 5, 5	3.8, 2.0, 1.0	
	3	11, 5, 5	4.7, 2.0, 1.1	
	1	11	4.7	
<b>198</b>	1	8	4.2	Hogs. Dug up by hogs.
	1	—	4.1	
	<i>nd</i>	<i>nd</i>	<i>nd</i>	
	0	<i>nd</i>	<i>nd</i>	
	0	<i>nd</i>	<i>nd</i>	
<b>199</b>	1	10	4.8	
	1	—	4.6	
	1	9	4.5	
	1	8	5.0	
	1	9	5.5	
<b>200</b>	1	11 (transition)	5.4	
	1	—	5.5	
	1	12	5.4	
	1	10	5.8	
	1	10	6.0	

#### Comments concerning control plant #151

In March 2010 we discovered that plant number 151 had been decapitated by passing porcine traffic. Its two broken heads were replanted by us near their tag. In a late summer visit that same year we found that one of the heads had again been kicked out of the ground and was badly shriveled. It was once again replanted.

In March of 2011 we found the head that had taken root in 2010 was quite healthy and growing whereas the shriveled one was nowhere to be found. More interestingly the original plant #151 was located by virtue of it sending up new pups.

On 13 March 2012, neither broken crown we had replanted could be located. The original plant was still present showing new growth.





Sunset at the study site on 13 March 2012