### **Appendix: Examples of Huozhou Diminutive Formation**

This appendix presents examples of Huozhou diminutive formation identified by the author during fieldwork. The examples are grouped into *ŋ*-ending ([aŋ], [jaŋ], [waŋ], [yaŋ], [əŋ], [iŋ], [uŋ], [yŋ]), *w*-ending ([aw], [jaw], [ow], [jow]), and *j*-ending ([aj], [waj], [ej], [wej]).

These examples were collected from a list compiled for the fieldwork, which includes 1) examples reported in previous literature, and 2) additional noun roots (Chinese characters) based on Feng & Zhao's (2014: 116-169) list of characters. Feng & Zhao (2014) provide common characters for each syllable in Huozhou Chinese (each character corresponds to one syllable), including a total of 2,346 characters for w-/j-/ŋ-ending syllables. Out of these, the author selected 244 characters in total (123 ŋ-ending, 72 w-ending, 49 j-ending), including those reported in the literature. Based on the author's knowledge of Chinese, these characters/morphemes can be used as concrete nouns and are candidates for diminutive formation through subtraction or reduplication.

Among the 244 candidates, 111 exhibit at least one of these processes (subtraction or reduplication), and 37 of them use both methods in diminutive formation. Table A1 provides a detailed breakdown of these findings.

	ŋ-ending	w-ending	j-ending	Total
Candidates	123	72	49	244
Subtraction	59	16	9	84
Reduplication	30	20	14	64
Both forms	21	11	5	37
At least one of the two forms	68	25	18	111

Table A1. Distribution of Huozhou diminutive forms among the collected examples

#### Notes

- 1. The subtracted forms are also known as "rime change" in the study of Chinese morphophonology.
- 2. Broad transcription is used to reflect general patterns and changes in vowel height. Issues regarding vowel quality (e.g., the alternation between [a] and [a]) are discussed in §2.1 and §2.2.
- 3. The subtracted forms of certain nouns can be used independently, while for others, the subtracted forms are more commonly seen in compounds (often disyllabic; e.g., [təŋ] in [te<sup>h</sup>y<sup>53</sup>.tu<sup>11</sup>], [te<sup>h</sup>yŋ<sup>35</sup>] in [wej<sup>35</sup>.te<sup>h</sup>y<sup>55</sup>]). When a compound is provided for illustration, both the gloss of the compound and the literal gloss (in parentheses) are given; see examples below.

Noun		Subtracted	Reduplicated	Gloss
[təŋ]	取 <b>灯</b>	$[te^{h}y^{53}.tu^{11}]$		match (get-light)
$[tc^hy\eta^{35}]$	裙		$[te^{h}y\eta^{35}.te^{h}y^{55}]$	skirt
	围裙	$[wej^{35}.te^hy^{55}]$		apron (enclose-skirt)

4. There are some discrepancies between the examples in this list and those described in earlier works, likely due to idiosyncratic variations. Previous studies describe the featural changes of [ow] (/əu/) and [jow] (/iəu/) as [u] and [iu] (Feng & Zhao 2014), [u]/[u] and [y] (X.Tian 1992), and [u] and

[y] (J.Tian 2009).

- 5. In some cases, the tone of the subtracted form becomes a falling tone. This tonal change has been noted in previous literature (e.g., Feng & Zhao 2014), but it does not appear to be systematic and warrants further investigation.
- 6. The tonal patterns in reduplicated forms are generally regular. In diminutive reduplication, the reduplicant carries a phonologically neutral tone (Feng & Zhao 2014: 25), which is common in many Chinese dialects. However, the realization of the neutral tone follows regular patterns. When the root has a level tone, the reduplicant is realized as a default mid-tone; when the root has a contour tone (rising or falling), the rightmost tonal feature of the root (high or low) spreads to the reduplicant. However, some exceptions exist, such as [kaŋ<sup>35</sup>.ka<sup>33</sup>] 'stick, pole'.

[aŋ], [jaŋ],	[aŋ], [jaŋ], [waŋ], [yaŋ]				
Noun		Subtracted	Reduplicated	Gloss	
[paŋ <sup>53</sup> ]	棒		[paŋ <sup>53</sup> . <u>pa</u> <sup>11</sup> ]	club, stick	
[paŋ <sup>11</sup> ]	班	[pa: <sup>11</sup> ]		work, duty	
[paŋ <sup>33</sup> ]	板		[paŋ <sup>33</sup> . <u>pa</u> <sup>33</sup> ]	board	
	黑板	[xjɛ: <sup>35</sup> .pa: <sup>55</sup> ]		blackboard (black-board)	
$[p^han^{35}]$	盘	[p <sup>h</sup> a: <sup>55</sup> ]	$[p^{h}\alpha\eta^{35}.\underline{p^{h}a}^{55}]$	plate	
[taŋ <sup>11</sup> ]	担	[ta: <sup>53</sup> ]	$[\tan^{55}.\underline{\tan}^{33}]$	shoulder pole	
$[t^h a \eta^{53}]$	蛋		$[t^h a \eta^{53} \cdot \underline{t^h a}^{11}]$	egg, small ball	
	鸡 <b>蛋</b>	[tei: <sup>35</sup> .t <sup>h</sup> a: <sup>55</sup> ]		egg (chicken-egg)	
$[t^han^{11}]$	摊		$[t^{h}a\eta^{11}.\underline{t^{h}a}^{33}]$	market stall	
[laŋ <sup>35</sup> ]	篮	[la: <sup>35</sup> ]	[laŋ <sup>35</sup> . <u>la</u> <sup>55</sup> ]	basket	
[kaŋ <sup>11</sup> ]	缸		[kaŋ <sup>35</sup> . <u>ka</u> <sup>33</sup> ]	water tank	
$[kaŋ^{11}]$	杆		[kaŋ <sup>35</sup> . <u>ka</u> <sup>33</sup> ]	stick, pole, rod	
	栏杆	[laŋ <sup>35</sup> .ka: <sup>55</sup> ]		railing (railing-pole)	
[kaŋ <sup>55</sup> ]	杠		[kaŋ <sup>55</sup> . <u>ka</u> <sup>33</sup> ]	bar, stick	
[xaŋ <sup>35</sup> ]	门槛	[məŋ <sup>35</sup> .xa <sup>53</sup> ]		doorsill (door-sill)	
[ŋaŋ <sup>11</sup> ]	鞍	[ŋaː <sup>11</sup> ]		saddle	
[ŋaŋ <sup>33</sup> ]	案	[ŋa: <sup>53</sup> ]		cutting board	
[saŋ <sup>33</sup> ]	伞	[sa: <sup>53</sup> ]		umbrella	
[saŋ <sup>11</sup> ]	衫	[sa: <sup>11</sup> ]		shirt; underwear	
[tshaŋ <sup>35</sup> ]	蚕	[ts <sup>h</sup> a. <sup>35</sup> ]		silkworm	

## A. ŋ-ending

[pjaŋ <sup>11</sup> ]	皮 <b>鞭</b>	[p <sup>h</sup> i: <sup>35</sup> .pja: <sup>55</sup> ]		whip (leather-whip)
[p <sup>h</sup> jaŋ <sup>53</sup> ]	辫	[p <sup>h</sup> ja: <sup>53</sup> ]	$[p^h jan^{53}.p^h ja^{11}]$	plait, braid
[p <sup>h</sup> jaŋ <sup>53</sup> ]	片	[p <sup>h</sup> ja: <sup>53</sup> ]		pieces
[mjaŋ <sup>53</sup> ]	调和面	[te <sup>h</sup> jaw <sup>35</sup> .xwr: <sup>35</sup> .mja: <sup>53</sup> ]		condiment (blend-mix-powder)
[ljaŋ <sup>35</sup> ]	帘		[ljaŋ <sup>35</sup> . <u>lja</u> <sup>55</sup> ]	curtain
	门帘	[məŋ <sup>35</sup> .lja: <sup>53</sup> ]		door curtain (door-curtain)
[tejan <sup>33</sup> ]	剪	[tɕja: <sup>53</sup> ]	[tejan <sup>33</sup> . <u>teja<sup>33</sup>]</u>	scissors
[tejay <sup>11</sup> ]	尖		[tejaŋ <sup>11</sup> . <u>teja</u> <sup>33</sup> ]	tip, point,
[tejay <sup>11</sup> ]	坎 <b>肩</b>	[k <sup>h</sup> aŋ <sup>33</sup> .teja: <sup>11</sup> ]		vest (pit-shoulder)
[te <sup>h</sup> jaŋ <sup>35</sup> ]	钱	[tɕʰjaː <sup>35</sup> ]		money, banknote
[ŋjaŋ <sup>33</sup> ]	心眼	[ɕiŋ <sup>11</sup> .ŋjaː <sup>31</sup> ]		mind (mind/heart-eye)
[jaŋ <sup>55</sup> ]	燕	[ja: <sup>55</sup> ]		swallow
[kwaŋ <sup>11</sup> ]	官	[kwa:11]		officer
[kwaŋ <sup>55</sup> ]	罐	[kwa: <sup>55</sup> ]	[kwaŋ <sup>55</sup> . <u>kwa</u> <sup>33</sup> ]	jar
[kwaŋ <sup>33</sup> ]	饭 <b>馆</b>	[faŋ <sup>53</sup> .kwa <sup>53</sup> ]		restaurant (meal-house)
[xwaŋ <sup>35</sup> ]	耳 <b>环</b>	[z]: <sup>35</sup> .xwa: <sup>33</sup> ]		ear ring (ear-ring)
[waŋ <sup>33</sup> ]	碗	[wa: <sup>53</sup> ]	$[waŋ^{33}.wa^{33}]$	bowl
[tş <sup>h</sup> waŋ <sup>35</sup> ]	船	[tş <sup>h</sup> wa: <sup>35</sup> ]		boat
[teyaŋ <sup>33</sup> ]	花 <b>卷</b>	[xwa: <sup>35</sup> .teqa: <sup>33</sup> ]		steamed bun with a twisted shape (flower-roll)
[te <sup>h</sup> yaŋ <sup>35</sup> ]	泉	[te <sup>h</sup> qa: <sup>35</sup> ]		water spring
[te <sup>h</sup> yaŋ <sup>11</sup> ]	卷		$[te^{h}qay^{11}.te^{h}qa^{33}]$	circle
	戒 <b>圈</b>	[tejaj <sup>55</sup> .te <sup>h</sup> qa: <sup>11</sup> ]		ring (ring-circle)
[eyaŋ <sup>35</sup> ]	油 <b>旋</b>	[jou <sup>35</sup> .eqa: <sup>53</sup> ]		a type of pancake (oil-swirl)
[yaŋ <sup>35</sup> ]	银 <b>圆</b>	[niŋ <sup>35</sup> .ya: <sup>55</sup> ]		silver coin (silver-coin)
[yaŋ <sup>53</sup> ]	院	[ya: <sup>53</sup> ]		courtyard
[yaŋ <sup>35</sup> ]	元	[ya: <sup>35</sup> ]		garden

[əŋ], [iŋ], [uŋ], [yŋ]					
Noun		Subtracted	Reduplicated	Gloss	
[pəŋ <sup>33</sup> ]	本	[pu: <sup>53</sup> ]	[pəŋ <sup>35</sup> . <u>pu</u> <sup>33</sup> ]	notebook	
[pəŋ <sup>33</sup> ]	本	[pu: <sup>53</sup> ]		cost	

[p <sup>h</sup> əŋ <sup>35</sup> ]	盆	[p <sup>h</sup> u: <sup>35</sup> ]	$[p^{h}  arrow \eta^{35} . \underline{p^{h} u}^{55}]$	basin
[məŋ <sup>35</sup> ]	IJ	[mu: <sup>35</sup> ]	[məŋ <sup>35</sup> . <u>mu</u> <sup>55</sup> ]	door <sup>1</sup>
[fəŋ <sup>11</sup> ]	屏风	[p <sup>h</sup> i: <sup>35</sup> .fu: <sup>11</sup> ]		folding screen (block-wind)
[fəŋ <sup>33</sup> ]	凉 <b>粉</b>	[lje <sup>35</sup> .fu: <sup>55</sup> ]		bean jelly (cool-rice noodle)
[fəŋ <sup>11</sup> ]	蜂	[fu: <sup>11</sup> ]		bee
[təŋ <sup>33</sup> ]	板 <b>凳</b>	[paŋ <sup>33</sup> .tu: <sup>33</sup> ]		stool
[təŋ <sup>11</sup> ]	取灯	[te <sup>h</sup> y: <sup>33</sup> .tu: <sup>11</sup> ]		match (get-light)
[ləŋ <sup>35</sup> ]	笼		[ləŋ <sup>35</sup> . <u>lu</u> <sup>55</sup> ]	cage
	灯 <b>笼</b>	[təŋ <sup>11</sup> .lu: <sup>55</sup> ]		lantern (light-cage)
[kəŋ <sup>11</sup> ]	根	[ku: <sup>11</sup> ]	[kəŋ <sup>33</sup> . <u>ku</u> <sup>11</sup> ]	root
[tʂəŋ <sup>11</sup> ]	顶 <b>针</b>	[tei: <sup>35</sup> .tşu: <sup>11</sup> ]		thimble (go against- needle)
[zəŋ <sup>35</sup> ]	仁	[zu: <sup>35</sup> ]	[zəŋ <sup>35</sup> . <u>zu</u> <sup>55</sup> ]	
[miŋ <sup>35</sup> ]	名	[mi: <sup>35</sup> ]		name
[liŋ <sup>33</sup> ]	领	[li: <sup>33</sup> ]		collar
[liŋ <sup>35</sup> ]	铃	[li: <sup>35</sup> ]		bell, chime
[teiŋ <sup>33</sup> ]	井	[tei: <sup>33</sup> ]		water well
[iŋ <sup>33</sup> ]	影	[i: <sup>33</sup> ]		shadow
[tuŋ <sup>11</sup> ]	墩		[tuŋ <sup>11</sup> . <u>tu</u> <sup>33</sup> ]	gate pier
[t <sup>h</sup> uŋ <sup>33</sup> ]	桶	[t <sup>h</sup> u: <sup>53</sup> ]	$[t^h u \eta^{33} \cdot \underline{t^h u}^{11}]$	bucket
[t <sup>h</sup> uŋ <sup>33</sup> ]	筒		$[t^{h}u\eta^{33}.\underline{t^{h}u}^{33}]$	cylinder container
[lyŋ <sup>35</sup> ]	轮		[lyŋ <sup>35</sup> . <u>ly</u> <sup>55</sup> ]	wheel
[kuŋ <sup>55</sup> ]	棍		[kuŋ <sup>55</sup> . <u>ku</u> <sup>33</sup> ]	stick, rod
	拐棍	[kwaj <sup>55</sup> .ku <sup>33</sup> ]		crutch (crutch-stick)
[te <sup>h</sup> yŋ <sup>35</sup> ]	裙		$[te^hy\eta^{35}.te^hy^{55}]$	skirt
	围裙	[wej <sup>35</sup> .tc <sup>h</sup> y: <sup>55</sup> ]		apron (enclose-skirt)
[tsuŋ <sup>11</sup> ]	酒盅	[tejow <sup>33</sup> .tsu: <sup>11</sup> ]		goblet (liquor-goblet)
[ts <sup>h</sup> uŋ <sup>11</sup> ]	葱	[ts <sup>h</sup> u: <sup>11</sup> ]		leek
[tşhuŋ <sup>35</sup> ]	虫		$[t\$^huŋ^{35}.\underline{t\$^hu}^{55}]$	insect

<sup>&</sup>lt;sup>1</sup> The subtracted form  $[mu:^{35}]$  often refers to doors of houses/rooms, whereas the reduplicated form,  $[məŋ^{35}.\underline{mu}^{55}]$ , specifically indicates the door of animal stalls (e.g. pigpen).

# B. w-ending

[aw], [jaw]				
Noun		Subtracted	Reduplicated	Gloss
[paw <sup>11</sup> ]	包	[po: <sup>11</sup> ]	[po: <sup>11</sup> . <u>po</u> <sup>33</sup> ]	bag, purse
[maw <sup>35</sup> ]	毛	[mo: <sup>35</sup> ]	[mo: <sup>35</sup> . <u>mo</u> <sup>55</sup> ]	hair, fur, down
[taw <sup>33</sup> ]	刀	[to: <sup>33</sup> ]	$[\text{to:}^{33}.\underline{\text{to}}^{33}]$	knife
[taw <sup>53</sup> ]	道	[t <sup>h</sup> o: <sup>53</sup> ]	$[t^{h}o:^{53}.\underline{t^{h}o}^{11}]$	way; means
[kaw <sup>11</sup> ]	羊 <b>羔</b>	[je. <sup>35</sup> .ko. <sup>11</sup> ]	[je: <sup>35</sup> . <u>ko<sup>11</sup>.ko</u> <sup>11</sup> ]	lamb
[ŋaw <sup>33</sup> ]	袄	[ŋo: <sup>53</sup> ]	[ŋo: <sup>53</sup> . <u>ŋo</u> <sup>11</sup> ]	cotton-padded jacket
[tsaw <sup>33</sup> ]	枣	[tso: <sup>53</sup> ]	[tso: <sup>33</sup> . <u>tso</u> <sup>33</sup> ]	date (fruit)
[tshaw <sup>33</sup> ]	草	[ts <sup>h</sup> o: <sup>53</sup> ]	$[ts^{h}o:^{33}.\underline{ts^{h}o}^{33}]$	grass
[t <sup>h</sup> aw <sup>55</sup> ]	套		$[t^{\rm h} {\rm o}:^{55} \cdot \underline{t^{\rm h} {\rm o}}^{33}]$	cover, case (e.g., pillowcase)
[maw <sup>53</sup> ]	帽		[mo: <sup>53</sup> . <u>mo</u> <sup>11</sup> ]	hat
[tsaw <sup>55</sup> ]	罩		[tso: <sup>55</sup> . <u>tso</u> <sup>33</sup> ]	cover (e.g., bed cover)
[tc <sup>h</sup> jaw <sup>35</sup> ]	条	[te <sup>h</sup> jo. <sup>35</sup> ]	$[te^{h}jo^{35}.\underline{te^{h}jo}^{55}]$	bar, strip
[mjaw <sup>53</sup> ]	庙	[mjo: <sup>53</sup> ]		temple
[tchjaw <sup>53</sup> ]	轿	[tc <sup>h</sup> jo. <sup>53</sup> ]		sedan
[mjaw <sup>35</sup> ]	曲		[mjo: <sup>35</sup> . <u>mjo</u> <sup>55</sup> ]	sprout, shoot
[p <sup>h</sup> jaw <sup>55</sup> ]	票		[p <sup>h</sup> jo: <sup>55</sup> .p <sup>h</sup> jo <sup>33</sup> ]	ticket, banknote

[ow], [jow]				
Noun		Subtracted	Reduplicated	Gloss
[t <sup>h</sup> ow <sup>35</sup> ]	头		[tu: <sup>33</sup> . <u>tu</u> <sup>33</sup> ]	pillow
	枕头	[tʂəŋ <sup>55</sup> .t <sup>h</sup> u: <sup>33</sup> ]		pillow (rest-head)
	指头	[ts <sub>1</sub> : <sup>35</sup> .t <sup>h</sup> u: <sup>53</sup> ]		finger (point/direct-head)
[kow <sup>33</sup> ]	狗	[ku: <sup>53</sup> ]		dog
[low <sup>33</sup> ]	篓	[lu: <sup>53</sup> ]	[lu: <sup>33</sup> . <u>lu</u> <sup>33</sup> ]	basket
[low <sup>35</sup> ]	门楼	[məŋ <sup>35</sup> .lu: <sup>33</sup> ]		archway, gate
[t <sup>h</sup> ow <sup>53</sup> ]	豆		$[t^{h}u:^{53}.\underline{t^{h}u}^{11}]$	bean
[kow <sup>35</sup> ]	钩		[ku: <sup>35</sup> . <u>ku</u> <sup>55</sup> ]	hook
[njow <sup>35</sup> ]	牛		[ŋy <sup>35</sup> . <u>ŋy</u> <sup>55</sup> ]	long-horn beetle

[ljow <sup>35</sup> ] 琉	[ly <sup>35</sup> .ly <sup>55</sup> ] glass ball
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# C. j-ending

[aj], [waj]				
Noun		Subtracted	Reduplicated	Gloss
[p <sup>h</sup> aj <sup>35</sup> ]	牌		[p <sup>h</sup> aj <sup>35</sup> . <u>p<sup>h</sup>a</u> <sup>55</sup> ]	card
[taj <sup>55</sup> ]	袋		[taj <sup>55</sup> . <u>ta</u> <sup>33</sup> ]	bag, sack
	布袋	[pu: <sup>55</sup> .t <sup>h</sup> a: <sup>33</sup> ]		cloth sack (cloth-sack)
[taj <sup>53</sup> ]	带		$[t^{h}aj^{53}.\underline{t^{h}a}^{11}]$	ribbon
[t <sup>h</sup> aj <sup>35</sup> ]	台		$[t^{h}aj^{35}.\underline{t^{h}a}^{55}]$	platform
[kaj <sup>55</sup> ]	盖		[kaj <sup>55</sup> . <u>ka</u> <sup>33</sup> ]	lid, cover
[kwaj <sup>33</sup> ]	拐		[kwaj <sup>33</sup> . <u>kwa</u> <sup>33</sup> ]	crutch
[k <sup>h</sup> waj <sup>53</sup> ]	块	[k <sup>h</sup> wa: <sup>53</sup> ]	$[k^hwaj^{53}.k^hwa^{11}]$	piece, chunk
[tsaj <sup>11</sup> ]	钗	[tsa: <sup>11</sup> ]		hairpin
[saj <sup>11</sup> ]	筛	[sa: <sup>53</sup> ]	[saj <sup>11</sup> . <u>sa</u> <sup>33</sup> ]	sieve

[ej], [wej]				
Noun		Subtracted	Reduplicated	Gloss
[pej <sup>11</sup> ]	杯		[pej <sup>11</sup> . <u>pu</u> <sup>33</sup> ]	cup, mug
[pej <sup>53</sup> ]	辈	[pu: <sup>53</sup> ]		lifetime, generation
[twej <sup>11</sup> ]	堆	[tu: <sup>11</sup> ]	[twej <sup>11</sup> . <u>tu</u> <sup>33</sup> ]	pile
[t <sup>h</sup> wej <sup>33</sup> ]	腿		$[t^h wej^{33}.\underline{t^h u}^{33}]$	leg, shank
[kwej <sup>53</sup> ]	柜		[kwej <sup>53</sup> . <u>ku</u> <sup>11</sup> ]	cabinet, cupboard
[k <sup>h</sup> wej <sup>11</sup> ]	盔	[k <sup>h</sup> u: <sup>11</sup> ]	$[k^hwej^{11}.\underline{k^hu}^{33}]$	bowl, container
[tş <sup>h</sup> wej <sup>35</sup> ]	锤	[tş <sup>h</sup> u: <sup>35</sup> ]	$[t_{\xi^{h}}wej^{35}.t_{\underline{\xi^{h}u}}^{55}]$ $[t_{\xi^{h}u}.^{35}.t_{\underline{\xi^{h}u}}^{55}]$	hammer
[tş <sup>h</sup> wej <sup>35</sup> ]	槌	[t§ <sup>h</sup> u: <sup>35</sup> ]		mallet