

Supplemental Materials for:

Chapter 11: Lower Chinookan Disease and Demography. Robert T. Boyd. *Chinookan Peoples of the Lower Columbia River* (R.T. Boyd, K.M. Ames, T. Johnson editors). University of Washington Press, Seattle 2013

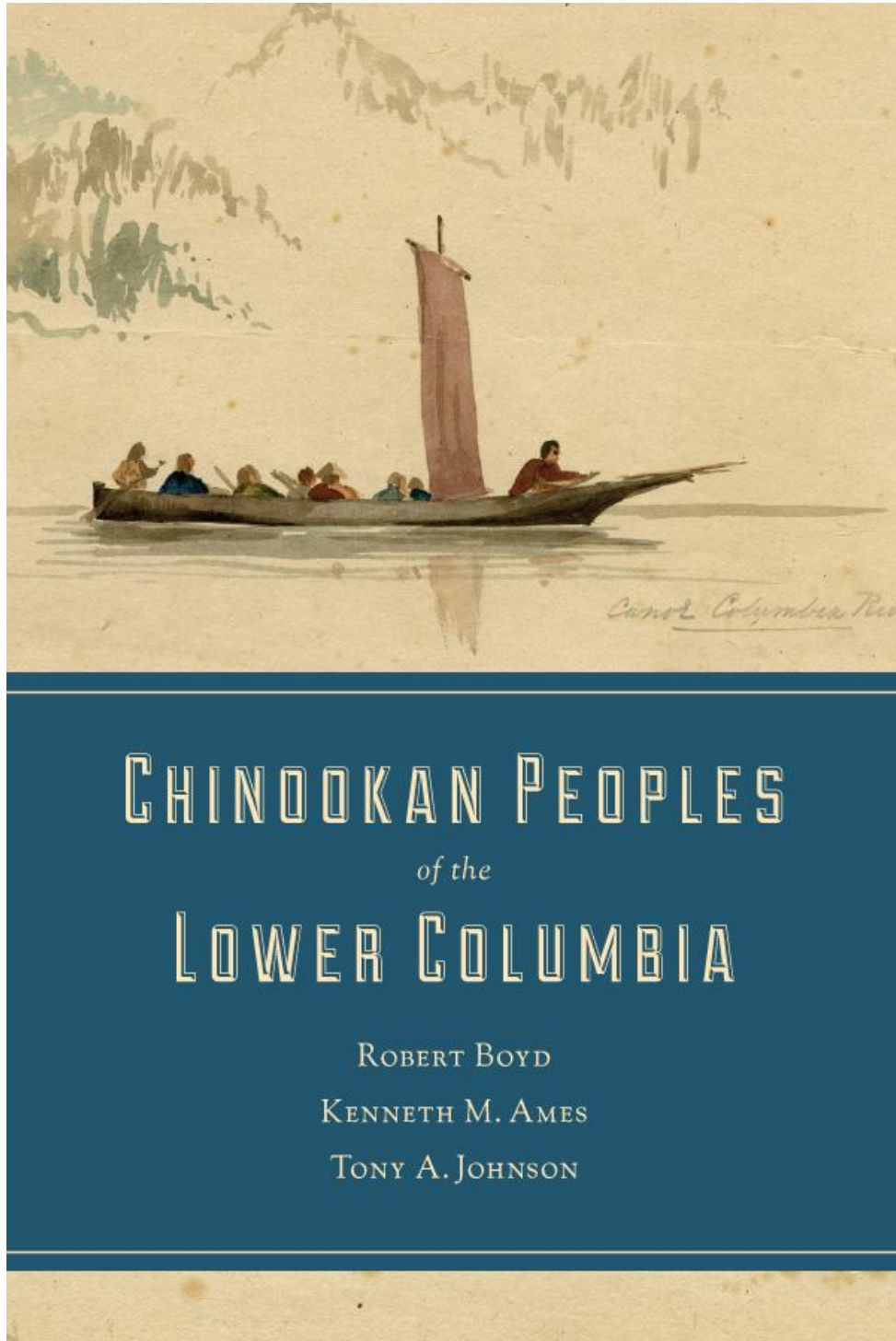


Table S11.1: Lower Columbia Pre-contact Ailments: documented and likely

Name	Characteristics	Citations	Comments
<i>Bones</i>			
osteoarthritis	bone wear & mal-formation; especially spine & limbs	not documented for Chinookans but present throughout NW	concentrated among women and elderly. mechanical stress related to workload.
worn teeth	due to chewing & grit in a seafood diet	Lewis & Clark 1988:373 Hall, Morrow & Clark 1986	caries likely rare & limited to camas (carbohydrate source) areas
<i>Nutrition</i>			
starvation	seasonal	(see text)	
scurvy	skin hemorrhages, edema, bleeding gums	Henry 1992: 703	likely due to lack of winter Vit C relieved with spring greens
“apoplexy”	cerebral hemorrhage	Scouler 1905: 176	sources attribute to excess dietary oil
“liver affection”	gall bladder disease?	Swan 1857: 177	“ “
<i>Food poisoning</i>			
toxic mimics of food plants	death camas, poison hemlock	Scouler 1905: 279	
salmonellosis	diarrhea & gastroenteritis <i>Salmonella</i> bacteria	Jacobs 1958: 151, 1959a: 365	rancid fish
<i>Intestinal parasites</i>			
tapeworm	stomachache, diarrhea, weakness	Jacobs 1958: 245-46	from fish
roundworm	anisakiasis	not documented but likely given diet	poorly cooked fish
fish fluke	salmon-poisoning disease: bacteria carried by fluke	possible references: Jacobs 1959a: 548 Henry 1992: 621, 629, 632	from eating infected salmon with skin disease
<i>Infections</i>			
nonvenereal <i>Treponematosi</i> s	like yaws: childhood hand & foot lesions	likely; documented in BC	possible partial cross-immunity to venereal <i>Treponematosi</i> s (syphilis) on Polynesian model
pediculosis/ impetigo	caused by lice bite & <i>Staphylococcus</i> and <i>Streptococcus</i> infection	Henry 1992: 664 several myth references	most “scab” & “sore” references probably refer to these cured by sweatbathing
conjunctivitis	staph or strep infection carried by gnats or flies	Lewis & Clark 1991: 85	most likely cause of “eye disease” trachoma (prevalent later) a second
otitis media	staph or strep ear infection	not documented but likely	prevalent among contemporary Native Americans

Table S11.2: Secondary Introduced Diseases along Lower Columbia

<i>Name</i>	<i>Comments</i>	<i>Citations</i>	<i>Mortality</i>
<i>colds</i>	probably common in winter around forts with extra-regional contacts	Lewis & Clark 1990: 444 McDougall 1999: 64, 66	Feb-March 1805: only one (Clatsop) death noted Dec-Jan 1811-12: Natives “at rapids...dying very fast” “colds...carry off...great numbers”
<i>venereal diseases</i>	on NWC by 1778 (Cook Exp.) common among men at Fort Astor/George, 1811-23 transmitted to female slaves diminished with HBC policy promoting common-law marriages w/Native women	L&C 1990: 74, 75, 240 Henry 1992 McDougall 1999 Simpson 1931: 99-101	Indian deaths rarely reported adverse effect on fertility by 1840s (Hinds 1839, Lee & Frost 1844: 314)
“ <i>leprosy</i> ”	diagnosis uncertain; possibly introduced in late 1700s, possibly indigenous	see Boyd 1999: app. 3 Landerholm 1956: 111-2 Barclay in Dunn 1846	individual deaths after long illness: Silas Smith’s brother one of several
<i>tuberculosis</i>	first reported on Lower Columbia in mid-1830s two forms: pulmonary (“consumption”) earliest; cutaneous (“scrofula”) later	Jacobs 1959a: 545-46 Kane 1971b: 92 Moses 1855: 38	chronic in individuals; one of Kiesno’s sons an early casualty
<i>influenza</i> outbreaks 1836-38	not specifically documented along Lower Columbia but likely given presence N, S, & E	Boyd 1999b: 136-37	not documented
<i>dysentery</i> epidemic 1844	probably shigellosis introduced from Polynesia to Ft Vancouver on Modeste	Boyd 1999b: 138-42 DeSmet 1906: 167 Barclay in Dunn 1846	400 “in vicinity of the Fort” (Vancouver)
<i>measles</i> epidemic 1848	brought to NW from California by mounted Indian traders; introduced to Lower Columbia by white emigrants; spread from there both north & south	Boyd 1994, 1999b: 149-51; Jacobs 1959: 547-48	“a ninth” 1500 “from the Columbia River alone” (Ogden in Kane 1971b: 331)
<i>smallpox</i> epidemic 1853	brought on ships from San Francisco wrecked at Willapa Bay & possibly Clatsop spread to W Washington	Boyd 1999: 161-64 Swan 1857: 54-58 Tappan 1854	nearly half of 1852 population at river mouth (Smith 1902: 226,242)

Table S11.3: Lower Chinookan Peoples in Lewis and Clark's Estimates¹

Name	Ethnicity	Estimate 1	Estimate 2	Difference
<i>Sha-ha-la Nation</i>	<i>Cascades Chinookan</i>	1,500	2,800	1,300 (46%)
y-e-huh	(fishery visitors:			
Clah-clel-lah	Northwest Sahaptins)			
Wah-clel-lah				
Ne-er-cho-ki-oo				
<i>Wap-pa-to Nation</i>	<i>Multnomah Chinookan</i>	2,210	5,290	3,080 (58%)
Ne-cha-co-kee		100	100	
Multi-no-mah	(visitors: diverse)	200	800	600 (75%)
Clan-nah-quah		130	130	
Shotos	(visitors:	180	460	280 (61%)
Quath-lah-poh-tle	(Northwest Sahaptin)	300	900	600 (67%)
Cal-la-maks		200	200	
Cath-lah-cum-ups	(visitors:	150	450	300 (66%)
Clack Star	Athapascans?)	350	1,200	850 (71%)
Clan-nar-min-a-mow		280	280	
Clan-in-na-tas	(visitors:	100	200	100 (50%)
Cath-lah-nah-quiah	Kalapuyans?)	150	400	250 (63%)
Cath-lah-com-mah-tup		70	170	100 (59%)
<i>[Clackamas] villages</i>	<i>Clackamas Chinookan</i>	1,350	2,850	1,500 (53%)
Ne-mal-quin-ner		100	200	100 (50%)
Clark-a-mus	(visitors: Molala?)	800	1,800	1,000 (56%)
Cush-hooks	(visitors: Kalapuyan?)	250	650	400 (62%)
Char-co-wah ²		200	200	
<i>[Cathlamet] villages</i>	<i>Cathlamet Chinookan</i>	1,800	3,000	1,200 (40%)
Skil-lutes	(visitors: Cowlitz)	1,500	2,500	1,000 (40%)
Wack-ki-a-cums	(visitors:	100	200	100 (50%)
Cath-lah-mahs	Athapaskan)	200	300	100 (33%)
[Lower Chinook]	refers only to north bank	700*		
Chin-nooks		400		
Clat-sops		200		
Kil-laxt-ho-kles ³		100		
Total		7,560	14,640	7,080 (48%)

¹Based on Table 15 in Boyd 1999b. Lewis & Clark's original two estimates are printed in Lewis and Clark 1990: 473-89.

²In 1999 I excluded Char-co-wah in the basis of the "Ch" which is usual at the beginning of Kalapuyan (Willamette Valley) place names. But /čaká'wa/ is on record as a Molala name both for Oregon City and for the people of Oregon City. This suggests a name that survived among speakers of the neighboring Molala language, but which Lewis and Clark's record suggests was once in wider local currency.

³Listed in the Estimates as somewhere on the coast north of the Columbia. Franz Boas (1901:196) shows Naqctxō'kL /naqšt̚xúk̚/ for North River, which enters the far northern end of Willapa Bay;; and in Hodge (1912(1):688) he is cited as authority for the spelling GaLā'qstxoQL, which is the same name as /naqšt̚xúk̚/, but with the Chinookan prefixes /g-a-ł-a-/ 'people of'. So Kil-laxt-ho-kles appears to be a Lower Chinook reference to 'people of North River'.