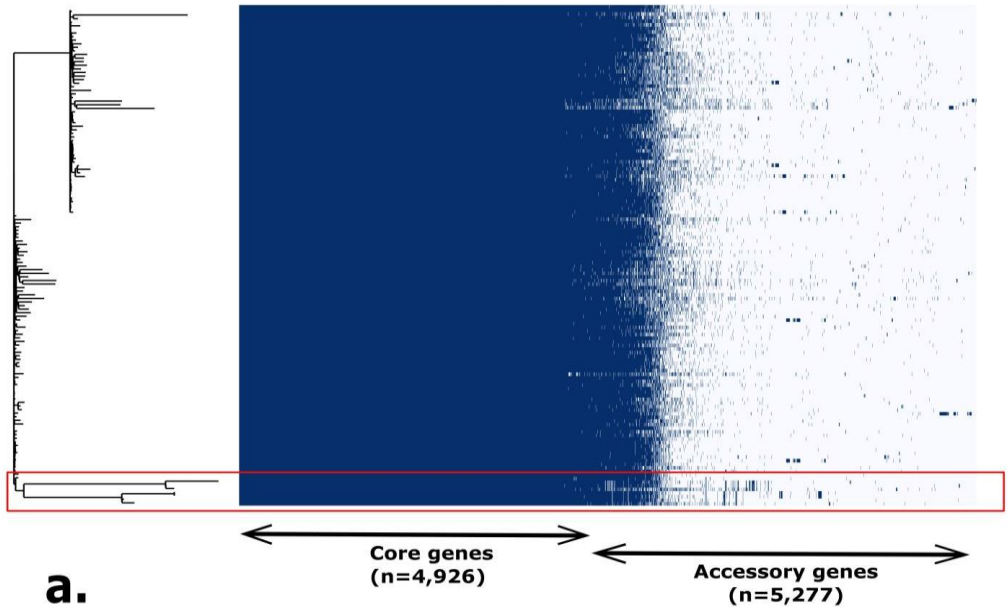
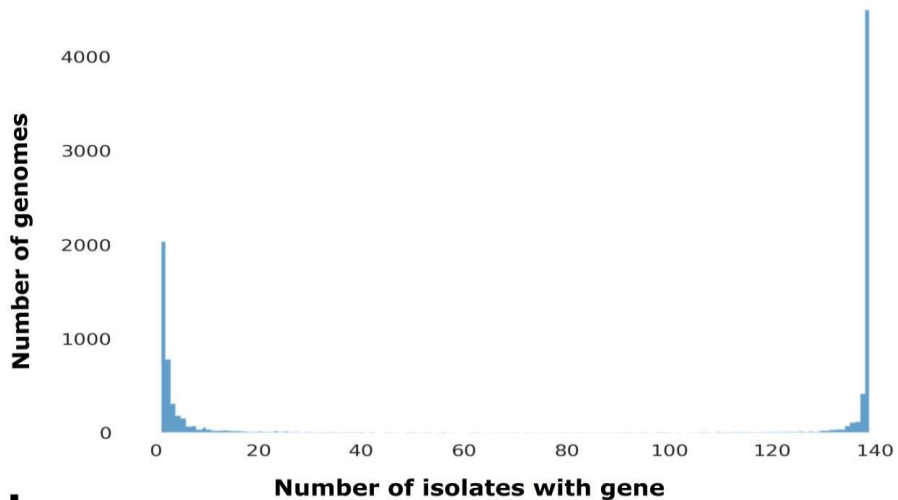


Figure S1.- Histology photomicrographs. (A). Lung from first crocodile with a large focus of necrosis and heterophil infiltration (asterisk) and acute diffuse interstitial pneumonia characterised by interstitial expansion due to oedema, fibrin, heterophil and macrophage infiltration. Note normal, unaffected epithelium lining large airway (arrow). HE. Bar = 100 μ m. (B). Heart from first crocodile with a large focus of lytic necrosis with associated heterophil infiltration (asterisk) and diffuse hypertrophy of endocardium with mild infiltration of mixed inflammatory cells (arrow). HE. Bar = 100 μ m. C. Liver from second crocodile showing random multifocal necrosis (arrows). The liver is congested, and there are dilated lymphatics (clear spaces) beside a large portal area at the left of the image. The vacuolated appearance of viable hepatocytes is normal for hatchling crocodile liver. HE. Bar = 100 μ m. D. Spleen from second crocodile showing coalescing necrosis involving most of the parenchyma, obliterating all splenic arterioles, with only a few remaining lymphocytes and architectural remnants, such as the small artery at the arrow. HE. Bar = 100 μ m.

Gene presence-absence matrix



a.



b.

Figure S2.- The *B. pseudomallei* ST-109 pan-genome. (a.) A heatmap showing gene presence (dark blue) or absence (light blue) in each of the 139 strains. A phylogeny built based on the 4,926 core genes is shown on the left. Red box highlights cluster containing nine of the ten outlier ST-109 genomes (MSHR0457, MSHR0537, MSHR2157, MSHR3915, MSHR4462, MSHR4483, MSHR6049, MSHR6437, MSHR9037). (b.) A histogram displaying the distribution of how many genomes each gene is found within.

Sample ID	Sample Type	Collection Date	Sample Location
CP37*	Soil	12/5/16	Grass area adjacent to crocodile hatchling holding tanks
CPW2	Water	12/5/16	Water collected from feed channel in holding tanks
CPW3	Water	12/5/16	Water collected from feed channel in holding tanks
CPW4	Water	12/5/16	Water collected from feed channel in holding tanks
CPW5*	Water	12/5/16	Water collected from deceased hatchlings holding tank
CPW6	Water	12/5/16	Drain area adjacent to tank
CPW7	Water	12/5/16	Drain area hose
CPSW1	Env swab	12/5/16	Swab from croc resting area in holding tank
CPSW2	Env swab	12/5/16	Swab from feeding channel in holding tank
CPSW3	Env swab	12/5/16	Swab from feed area where food is placed in holding tank
CPSW4	Env swab	12/5/16	Swab from floating boards in holding tank
CPSW5	Env swab	12/5/16	Swab from floating boards in holding tank
CPSW6	Env swab	12/5/16	Swab from drain in holding tank
CPSW7	Env swab	12/5/16	Bottom of drain float swab in holding tank
CPW8	Water	16/5/16	Feeding channel water adjacent to deceased croc tank
CPW9	Water	16/5/16	Water from hatchling holding tank
CPSW19	Env swab	16/5/16	Bio film swab from feeding channel
CPW10	Water	16/5/16	Tank feeding channel water
CPSW20*	Env swab	16/5/16	Swab from wall of incubator
CPSW21	Env swab	16/5/16	Swab from incubator egg racks
CPW11	Water	16/5/16	Water from inside hatchling incubator
CPA3A	Air	16/5/16	Air sample from hatchling incubator
CPSW22	Env Swab	30/5/16	Swab from wall of incubator
CPSW23	Env swab	30/5/16	Swab from wall of incubator
CPSW24	Env swab	30/5/16	Swab from room incubator racks
CPW12	Water	30/5/16	Water from hatchling holding tank
CPW13	Water	30/5/16	Water from hatchling holding tank
CPW14	Water	30/5/16	Water from hatchling holding tank
CPW15	Water	30/5/16	Water from hatchling holding tank
CPW16	Water	30/5/16	Water from hatchling holding tank
CPW17	Water	30/5/16	Water from hatchling holding tank
CPW18*	Water	30/5/16	Water collected from deceased hatchlings holding tank
CPW19	Water	30/5/16	Water from hatchling holding tank

Sample ID	Original species designation	Source of sample	Year	Region of sample origin (NT, Aus)	NSB score	Contigs	Total length	GenBank/SRA accession no.	Reference
MSHR0064	<i>Burkholderia pseudomallei</i>	Human	1991	Urban Darwin	124493	92	7142432	SAMN1617318	This study
MSHR0067	<i>Burkholderia pseudomallei</i>	Human	1991	Urban Darwin	124493	159	7132294	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR0068	<i>Burkholderia pseudomallei</i>	Human	1991	Urban Darwin	125281	71	7140942	SAMN1617319	This study
MSHR0071	<i>Burkholderia pseudomallei</i>	Human	1991	Urban Darwin	142837	92	7137704	SAMN1617320	This study
MSHR0082	<i>Burkholderia pseudomallei</i>	Human	1991	Urban Darwin	125204	77	7167678	SAMN1617321	This study
MSHR0090	<i>Burkholderia pseudomallei</i>	Human	1991	Urban Darwin	147084	77	7140636	SAMN1617322	This study
MSHR0128	<i>Burkholderia pseudomallei</i>	Human	1991	Urban Darwin	209454	616	7087625	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR0138	<i>Burkholderia pseudomallei</i>	Human	1993	Darwin rural region	226160	49	7135940	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR0245	<i>Burkholderia pseudomallei</i>	Human	1994	Urban Darwin	25281	430	7067328	SAMN1617323	This study
MSHR0342	<i>Burkholderia pseudomallei</i>	Human	1994	Darwin remote region	51816	220	7116833	SAMN1617324	This study
MSHR0358	<i>Burkholderia pseudomallei</i>	Human	1995	Darwin remote region	142814	88	7123200	SAMN1617325	This study
MSHR0457	<i>Burkholderia pseudomallei</i>	Human	1996	Urban Darwin	209454	53	7225253	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR0517	<i>Burkholderia pseudomallei</i>	Human	1998	Urban Darwin	105247	108	7138749	SAMN1617326	This study
MSHR0537	<i>Burkholderia pseudomallei</i>	Human	1998	Adelaide River region	173827	73	7168923	SAMN1617327	This study
MSHR0538	<i>Burkholderia pseudomallei</i>	Human	1998	Urban Darwin	113648	92	7132028	SAMN1617328	This study
MSHR0539	<i>Burkholderia pseudomallei</i>	Human	1998	Urban Darwin	64427	201	7128449	SAMN1617329	This study
MSHR0579	<i>Burkholderia pseudomallei</i>	Human	1998	Urban Darwin	140569	91	7147514	SAMN1617330	This study
MSHR0585	<i>Burkholderia pseudomallei</i>	Human	1998	Urban Darwin	138354	83	7149896	SAMN1617331	This study
MSHR0605	<i>Burkholderia pseudomallei</i>	Human	1999	Urban Darwin	348030	35	7136846	SAMN1617332	This study
MSHR0640	<i>Burkholderia pseudomallei</i>	Human	1998	Darwin remote region	206160	58	7131172	JQF0000000	Johnson et al. Genome Announc. 2015 3(1):e01282-14
MSHR0643	<i>Burkholderia pseudomallei</i>	Human	1998	Urban Darwin	156461	80	7135967	SAMN1617333	This study
MSHR0719	<i>Burkholderia pseudomallei</i>	Human	1998	Urban Darwin	102184	121	7143941	SAMN1617334	This study
MSHR0738	<i>Burkholderia pseudomallei</i>	Human	1998	Adelaide River region	141915	101	7121528	SAMN1617335	This study
MSHR0741	<i>Burkholderia pseudomallei</i>	Human	1999	Urban Darwin	34355	339	7089758	SAMN1617336	This study
MSHR0749	<i>Burkholderia pseudomallei</i>	Human	1999	Darwin remote region	26342	442	7060285	SAMN1617337	This study
MSHR0811	<i>Burkholderia pseudomallei</i>	Human	1999	Darwin rural region	24624	226	7090959	SAMN1617338	This study
MSHR0883	<i>Burkholderia pseudomallei</i>	Human	1999	Urban Darwin	66925	178	7119512	SAMN1617339	This study
MSHR0910	<i>Burkholderia pseudomallei</i>	Human	2000	Darwin rural region	78815	162	7123709	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR0980	<i>Burkholderia pseudomallei</i>	Human	2000	Urban Darwin	33164	359	7087926	SAMN1617340	This study
MSHR1189	<i>Burkholderia pseudomallei</i>	Human	2001	Darwin remote region	30814	373	7075731	SAMN1617341	This study
MSHR1273	<i>Burkholderia pseudomallei</i>	Human	2001	Urban Darwin	43720	697	7147063	SAMN1617342	This study
MSHR1294	<i>Burkholderia pseudomallei</i>	Human	2001	Urban Darwin	56233	202	7112476	SAMN1617343	This study
MSHR1349	<i>Burkholderia pseudomallei</i>	Human	2002	Urban Darwin	39911	451	7099255	SAMN1617344	This study
MSHR1361	<i>Burkholderia pseudomallei</i>	Human	2002	Darwin remote region	25286	367	7068577	SAMN1617345	This study
MSHR1401	<i>Burkholderia pseudomallei</i>	Human	2002	Urban Darwin	141464	60	7130977	SAMN1617346	This study
MSHR1429	<i>Burkholderia pseudomallei</i>	Human	2002	Darwin rural region	52470	187	7120442	SAMN1617347	This study
MSHR1531	<i>Burkholderia pseudomallei</i>	Human	2003	Urban Darwin	102375	118	7133848	SAMN1617348	This study
MSHR1609	<i>Burkholderia pseudomallei</i>	Human	2003	Urban Darwin	148640	82	7150082	SAMN1617349	This study
MSHR1714	<i>Burkholderia pseudomallei</i>	Human	2003	Urban Darwin	145037	78	7143346	SAMN1617350	This study
MSHR1764	<i>Burkholderia pseudomallei</i>	Human	2003	Darwin remote region	149967	109	7148790	SAMN1617351	This study
MSHR1776	<i>Burkholderia pseudomallei</i>	Human	2003	Urban Darwin	127356	92	7140340	SAMN1617352	This study
MSHR1825	<i>Burkholderia pseudomallei</i>	Human	2004	Urban Darwin	99910	112	7139165	SAMN1617353	This study
MSHR1952	<i>Burkholderia pseudomallei</i>	Human	2005	Urban Darwin	335802	36	7133899	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR1960	<i>Burkholderia pseudomallei</i>	Human	2005	Urban Darwin	75824	153	7152595	SAMN1617354	This study
MSHR2016	<i>Burkholderia pseudomallei</i>	Human	2005	Urban Darwin	23863	47	7130400	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR2047	<i>Burkholderia pseudomallei</i>	Iguala	2004	Urban Darwin	93880	119	7152232	SAMN1617355	This study
MSHR2157	<i>Burkholderia pseudomallei</i>	Human	2005	Urban Darwin	118442	109	7239824	SAMN1617356	This study
MSHR2174	<i>Burkholderia pseudomallei</i>	Human	2005	Darwin rural region	105466	109	7180634	SAMN1617357	This study
MSHR2349	<i>Burkholderia pseudomallei</i>	Human	2006	Urban Darwin	85414	145	7140923	SAMN1617358	This study
MSHR2432	<i>Burkholderia pseudomallei</i>	Human	2006	Urban Darwin	75767	107	7120667	SAMN1617359	This study
MSHR2436	<i>Burkholderia pseudomallei</i>	Human	2006	Urban Darwin	103322	115	7134069	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR2511	<i>Burkholderia pseudomallei</i>	Human	2007	Urban Darwin	87532	150	7124121	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR2535	<i>Burkholderia pseudomallei</i>	Human	2007	Darwin rural region	62385	230	7117018	SAMN1617360	This study
MSHR2559	<i>Burkholderia pseudomallei</i>	Human	2007	Urban Darwin	140823	78	7143338	SAMN1617361	This study
MSHR2583	<i>Burkholderia pseudomallei</i>	Human	2007	Urban Darwin	251573	46	7122082	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR2632	<i>Burkholderia pseudomallei</i>	Human	2007	Darwin remote region	317685	45	7124720	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR2661	<i>Burkholderia pseudomallei</i>	Human	2007	Urban Darwin	254830	48	7128480	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR2967	<i>Burkholderia pseudomallei</i>	Human	2007	Urban Darwin	125042	100	7148596	SAMN1617362	This study
MSHR2994	<i>Burkholderia pseudomallei</i>	Human	2008	Darwin remote region	143220	83	7143200	SAMN1617363	This study
MSHR3008	<i>Burkholderia pseudomallei</i>	Human	2008	Urban Darwin	154057	74	7136213	SAMN1617364	This study
MSHR3017	<i>Burkholderia pseudomallei</i>	Human	2008	Urban Darwin	93660	131	7152818	SAMN1617365	This study
MSHR3532	<i>Burkholderia pseudomallei</i>	Human	2009	Urban Darwin	136496	94	7140258	SAMN1617366	This study
MSHR4001	<i>Burkholderia pseudomallei</i>	Human	2009	Darwin rural region	62461	205	7120185	SAMN1617367	This study
MSHR4603	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	84010	42	7149742	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4638	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	247540	53	7127793	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4639	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	110410	113	7125330	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4722	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	47275	207	7114825	SAMN1617368	This study
MSHR4909	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	82321	148	7122073	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4953	<i>Burkholderia pseudomallei</i>	Human	2009	Urban Darwin	62581	211	7116152	SAMN1617369	This study
MSHR4980	<i>Burkholderia pseudomallei</i>	Human	2009	Darwin rural region	66944	201	7112469	SAMN1617370	This study
MSHR3915	<i>Burkholderia pseudomallei</i>	Human	2010	Darwin rural region	71470	199	7144559	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4196	<i>Burkholderia pseudomallei</i>	Human	2010	Darwin rural region	36543	207	7104174	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4272	<i>Burkholderia pseudomallei</i>	Human	2010	Darwin rural region	78280	157	7137863	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4241	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	317788	38	7124821	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4396	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	61621	188	7110285	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4399	<i>Burkholderia pseudomallei</i>	Human	2011	Darwin rural region	72444	144	7107445	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4411	<i>Burkholderia pseudomallei</i>	Human	2010	Darwin rural region	25717	238	7128907	SAMN1617371	This study
MSHR4420	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	60854	202	7144324	SAMN1617372	This study
MSHR4434	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	65704	219	7134965	SAMN1617373	This study
MSHR4439	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	56743	233	7131179	SAMN1617374	This study
MSHR4441	<i>Burkholderia pseudomallei</i>	Human	2010	Urban Darwin	67415	191	7140055	SAMN1617375	This study
MSHR4462	<i>Burkholderia pseudomallei</i>	Soil	2010	Adelaide River region	403718	4	7223079	JQF0000000	Johnson et al. Genome Announc. 2015 3(1):e01282-14
MSHR4483	<i>Burkholderia pseudomallei</i>	Soil	2010	Adelaide River region	194048	62	7231247	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4593	<i>Burkholderia pseudomallei</i>	Human	2011	Darwin rural region	58102	253	7111516	SAMN1617376	This study
MSHR4708	<i>Burkholderia pseudomallei</i>	Human	2011	Darwin rural region	303779	47	7242620	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR4640	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	67996	202	7125376	SAMN1617377	This study
MSHR4649	<i>Burkholderia pseudomallei</i>	Human	2012	Adelaide River region	20287	224	7126041	SAMN1617378	This study
MSHR6059	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	75968	155	7124588	SAMN1617379	This study
MSHR6357	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	40044	358	7175928	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR6435	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	63122	179	7201410	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR6473	<i>Burkholderia pseudomallei</i>	Human	2012	Darwin rural region	531386	38	7133517	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR6455	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	84820	290	7122273	SAMN1617381	This study
MSHR6452	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	61720	207	7109518	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR7465	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	43900	252	7050086	SAMN1617382	This study
MSHR7626	<i>Burkholderia pseudomallei</i>	Capuchin	2012	Urban Darwin	139017	93	7149757	SAMN1617383	This study
MSHR7720	<i>Burkholderia pseudomallei</i>	Human	2012	Urban Darwin	298939	62	7131289	SAMN1617384	This study
MSHR7723	<i>Burkholderia pseudomallei</i>	Human	2012	Darwin rural region	72502	175	7103352	SRP065595	Price EP et al. Appl Environ Microbiol. 2016;82(3):954-63.
MSHR7775									