

1888

Leprosy in New Brunswick
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Canada

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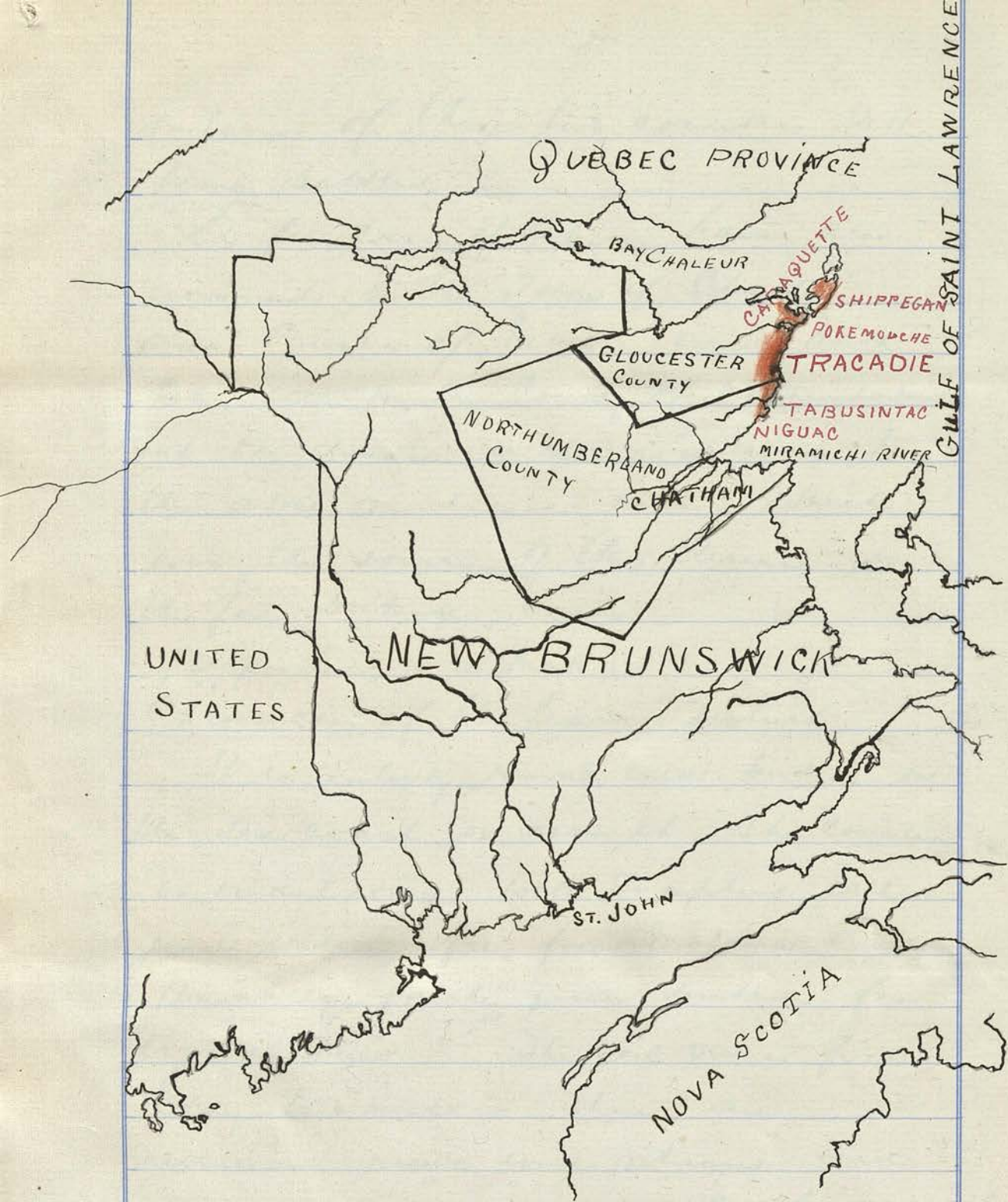
Elephantiasis graecorum
or True Leprosy, has existed in the
Province of New Brunswick for about the
past seventy three years.

With some few exceptions, this disease
has been confined to a small and
well defined district and mainly to
one race, that of the French -

Locality -

The affected district is that portion
of the North East coast of the Province,
bordering on Bay Chaleur, the Gulf of
Saint Lawrence, and the mouth of the
Miramichi River. and embraces in
the County of Gloucester, the parishes
of Shippegan, Caraquette, Inberman
(Pokemouche) and Saumarez (Iracadie) and in the County
of Northumberland, the parish of
Alnwick (Tabusintac & Riguac) -

This district is in length forty
five miles and in breadth from the
coast inland a few miles, the



LEPROUS AREA
(MARKED IN RED)
IN
NEW BRUNSWICK

interior of these two counties, not being settled -

A few cases of Leprosy have also occurred in the Town of Chatham and Parishes of Nelson and North Esk, all in the County of Northumberland, but the disease is now restricted to the above mentioned area, which was the source of this disease in the few outside cases -

(Appended is a Map.)

Character of the Leprous District -

It is entirely rural and borders on the sea coast or near it - The country is undulating, well supplied with good water, free from malaria and generally fairly well suited for Agriculture - The soil varies from Clay to sand - There are numerous rivers and streams and an abundant supply of fish -

In summer, the temperature is warm, and in winter severely cold - The district resembles closely the large remaining part of the northern and eastern coast of the

Province, where no leprosy exists.

Population

This portion of the Province was settled by the French, in the latter part of the eighteenth century, they came from various parts of Canada -

The population is French or partly French to a large extent, that is in about the proportion of nine to one. At present Leprosy is confined to this race - A few Scotch, English and Irish have suffered from this disease - None of Indians (Aborigines) have been known to become leprosy.

The Census for 1881 gives these figures

Shippegan	2,322
Caraguelte	3,837
Inkermou (Pokemouche)	1,804
Saumarez (Treceadie)	2,819
Alnwick (Tabusintec + Higuac)	2,646
	<hr/>
	13,428

In 1840, the population was about 5,500

The occupations of this people are mainly farming, fishing and lumbering - They are much given to social intercourse - Their houses

are generally small, food not very good and on the whole are rather poor in circumstances. They intermarry freely and move about the country to a very small extent.

History of Leprosy in this Province.

Leprosy has been observed in the various districts in Canada, from which the French came - It is said there are a few Lepers in Cape Breton, Nova Scotia but the disease there seems to be of later date -

The Records and Reports to the Provincial Government agree that the first case was that of a French woman Ursule Bernoit nee Landrie that the subsequent cases could be traced to her - In neither of her parents families could Leprosy be traced - Her paternal grandfather came from St. Malo Normandy where Leprosy is said to have existed -

Ursule was the eldest daughter of a family of eight born in Caraquette about 1783, married in 1800 & came to P. Acadia. Leprosy appeared on her between 1815 and

1818 - She died in 1828 -

Two sisters subsequently became affected
and Ursula's husband - The
children of one of the women and
grand children of the other two were
leprous and so it is believed,
the disease spread -

It is true that a young man who
assisted in carrying Ursula Brint's coffin
to the grave had his shoulder
abraded & wet with discharge which
soaked through - This James Bonin, whose
family history was good afterwards became
a leper - although whether infected in
this manner or not cannot be proved -
some of his relatives subsequently were
diseased -

These are some of the earliest cases
of Leprosy, they did not attract
much attention, until becoming
more numerous, the disease was
brought under the notice of the Provine-
cial Government by the grand jury at
Bathurst January 1844, about 28
years from its first appearance -
The jury drew attention to "a loathsome

and frightful disease that had existed for some years past, pronounced by eminent physicians to be leprosy" "They had been the habit of confining in some instances, the leper in a log enclosure constructed for the purpose and his food handed him through an opening in the logs, until he can no longer receive his own food, when of course he dies" - A Lazaretto was opened July 19th 1844 on Mel Drake Island and twenty-lepers were received, the lazaretto was subsequently removed to Tracadie, in 1849 - In 1868, a Community of Nuns took charge, the nursing is carried out by them in an excellent manner -

There is nothing remarkable about the building, a low wooden structure surrounded by some acres of ground, in which the lepers may exercise, garden etc. The Government of the Dominion of Canada defray the expenses which are small (\$3200 per annum) -

Character of the Leprosy -

The summary symptoms, onset, progress and mode of termination are quite similar to those as described in various other parts of the world.

The Tubercular and Anaesthetic forms are now or less distinctly represented and most frequently, the two forms are quite obviously associated in the same individual.

The following illustrative cases have been taken by me in 1886.

Pierre Doel.

Age 31 - admitted into Lazaretto 1880



His grand mother had leprosy turnt -
parents healthy -

4 years before admission he began to feel
unwell, first had pains running down
the legs into the soles of his feet, then
dark yellow spots appeared on legs,
arms and breast, then shoulders &
over eyebrows - when admitted, his hands
were swollen, discoloration in form of
patches over body & forehead & absence of
hair where these patches existed - there
was diminished sensibility to these patches -
When seen by me in 1886, he presented the
leonine appearance markedly - nose
broadened and tubercular - forehead
in folds and thickened - lips swollen
& ulcerated, so with the ears -

Tongue ulcerated & papulation of palate,
husky voice - Arms & legs rather
swollen & tender with numerous small
ulcers - Fingers bent, nails irregular
& cracked - Perineum ulcerated, testicles
swollen & tender -

The whole body was darkened with
increase of pigment -

Michel Doiron or Gould

act 30 - admitted 1882 -

Father & Mother families had leprosy -
He presented mainly the tubercular form
in a much more advanced stage than the
former case - Extensive ulceration of face
& hands - sight almost destroyed -
General condition much lowered -



Margaret Louisa née Robichaud -
aet 72 - admitted into Lazaretto
1844, discharged 1849 (thought
to be cured), readmitted 1850 -
Father & Mother & as far as known
all her ancestry free of leprosy -



Three brothers were lepers - the wife of
one was a leper & from whom it
was said leprosy appeared
in the Robichaud Family -

Dr. Robichaud married in 1832 &
bore two children before leprosy
appeared on her in 1838, after this
one three children, entering Lazaretto 1844

Her hands and feet were then chiefly affected and being considered cured was discharged in 1849, bore two more children and again entered Lazarets in 1880 -

Her condition as seen in 1886 was that her fingers and toes had quite disappeared but the healing had been very complete, merely cicatrices to be seen - There was diminution of sensation in both hands (Feet not examined for sensation). A few small ulcers on the feet and slight ectropion of both lower eyelids, the latter may or may not be leprosy, otherwise the woman was active and well -

Her youngest child, ^{a girl} became leprosy when 9 years of age, and after 22 years of leprosy died in 1885 - All her other children, grand & great grand children have so far been healthy -

These three cases illustrate Leprosy in its different forms, the first two having ~~more~~ especially the Tubercular form, extensive leprosy tubercles & ulcerations, these being progressive

have the effect of causing death
in a period of not very many years.

Both cases are now dead - Joel was
leprous for 10 years and fouled for
9 - In the third case, the Anaesthetic
form is represented, loss of sensation
in extremities with amputation of
digits and very few tubercles - Her life
is prolonged, unusually so however, in
Mrs. Sonier for she has been leprous
for 48 years - In the majority of
lepers, Anaesthesia and tubercles being
both well marked, the duration of life
is less than the more purely Anaesthetic
form and longer than when tubercular
elevation is pre-eminent -
These different forms however are merely
variations of the same disease -

Analysis of Cases admitted into Lazaretto
from 1868 to 1888.

	ADMITTED			DEATHS			WENT OUT		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
1868	5	3	2	0	0	0			
1869	4	2	2	7	3	4	2	0	2
1870	8	5	3	3	3	0			
1871	5	1	4	4	3	1	1	0	1
1872	7	4	3	9	5	4			
1873	6	6	0	2	2	0	1	1	0
1874	5	2	3	7	3	4	1	0	1
1875	3	1	2	2	2	0			
1876	0	0	0	5	3	2	1	1	0
1877	6	2	4	7	6	1			
1878	7	4	3	4	1	3			
1879	3	2	1	5	3	2			
1880	2	0	2	2	2	0			
1881	7	2	5	1	0	1			
1882	5	3	2	1	0	1			
1883	0	0	0	3	1	2			
1884	1	1	0	2	1	1			
1885	3	1	2	3	1	2	1	1	0
1886	3	1	2	5	0	5			
1887	2	0	2	3	2	1			
TOTAL	82	41	41	75	41	34	7	3	4

Examination of the Cases of Leprosy -

(a). Number of Lepers -

There have been admitted into Lazaretto from its opening, July 1844 to 1887, 194 cases -

Previous to July 1844, there were about 20 deaths, so that in all there have been ^{about} 220 cases of leprosy in 73 years in a population varying from 5500 to 13,428 -

Nearly all the Lepers have resorted, sooner or later to the Lazaretto, although a few have died outside -

(b). Sex

From 1868 to 1887, there were admitted into the Lazaretto 82 lepers - of these 41 were males and 41 females -

In these 20 consecutive years, the figures show an exact equality as regards the numbers of each sex deceased -

This is not in accordance with the proportion found by others - The males being generally considered to suffer most.

(c) Age

Of the 41 males admitted into Lazaretto, 39 had the following ages on entering (ages of two not obtained) -

13	26	57
26	10	14
12	23	39
32	36	35
24	15	15
15	25	8
42	7	11
23	36	12
17	15	18
18	20	42
23	17	18
11	26	18
49	27	12

The youngest male admitted was 7 years of age, the oldest 57 and the average male age on admission was 22.6 years.

The ages of the 41 Lazaretto females was as follows:

19	25-	15-
12	12	19
20	33	20
22	30	35-
20	20	9
33	20	20
23	55-	18
22	21	20
17	7	25-
36	66	20
23	36	26
23	14	14
45-	15-	12
13	18	

The youngest female admitted was 7, & the oldest 55, (the age 66 was a readmission)

The average female age on admission was 23.24 years, less than one year more than in the case of the males.

The average age on admission for males and females was 22.92 years.

The Lepers are nearly always diseased for some considerable time before they seek admission or are induced to do so; four and a half years would be a fair average for duration of

Disease before admission, hence the average age in these 80 cases at which leprosy appears is 18.42 years, but there is much variation in individual cases from this age -

(d) Duration of Life.

In the past 20 years there have been 41 male deaths in the Lazaretto - the periods of residence were in years + months :-

11-9	6-0	8-11	4-7	2-10
6-0	10-9	3-0	5-0	5-6
2-9	12-0	3-6	2-0	2-0
1-9	6-0	4-0	4-6	6-6
8-9	8-0	4-6	1-6	0-10
1-6	2-0	4-3	3-9	3-6
3-9	4-9	0-4	1-6	1-9
3-3	4-9	6-0	2-6	5-0
6-0				

The shortest period was 4 months, the longest 12 years - and the average 4.57 years -

During the same period there were 33 female deaths and the durations of residence was :-

8-3 7-10 4-8 2-0 5-0

1-6 15-9 2-9 4-0 1-9

3-9 0-9 0-9 4-3 0-2

3-9 11-6 2-0 4-0 7-6

1-0 3-4 1-3 0-10 3-6

2-6 2-3 4-6 5-0 4-0

0-9 0-6 10-0 -

The shortest period of residence was six months, the longest $15\frac{3}{4}$ years - The average female residence was 3.97 - (one death 5 days after admission not counted)

Allowing that both sexes enter about the same length of time after leprosy has appeared, these statistics show that the males live rather longer than the females -

Adding four and a half years to the above figures will give to the 41 males, an average duration of life of 9.07 years, to the 33 females 8.47 years and to 74 of both sexes 8.77 years -

Contagion and Heredity

That Leprosy is not due to Climate, soil or miasma is evident, for in New Brunswick there is a large part similar in every way to the leprous district and also leugely people by the same race, that of the French and yet absolutely free from Leprosy - also in the affected area when there are a number of Indians, no disease has appeared in them -

It is evident that Leprosy is either contagious or hereditary or both, from the marked manner in which it continues in certain families - It being prevalent in certain families of course does not prove the disease to be hereditary more than it does contagious, except when a generation is skipped and there has been no opportunity for contagion, such an undoubted example however of heredity, I have not been able to find, as all the present cases have had associations with lepers even if their parents were healthy -

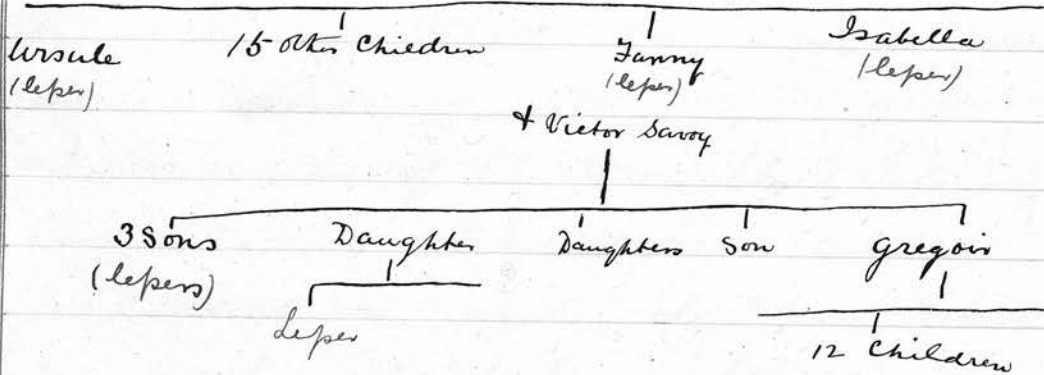
These people intermarry freely, and so it is impossible to find any who have not some leprous ancestor -

That the disease has remained so defined is due to the isolated character of the country and the habit of the people not to roam -

Of the 82 cases already mentioned, 58 have arisen in the Parish of Tracadie the centre of the disease, while the remaining 24 came from the other parishes, Digues 3, Pokemouche 9, Suppagan 6 and Carapette 6 -

As an example of a leprous family, I give the following, which I obtained from several of the family -

Anselm Landri + Mary Bideau



In this family, in four generations, there have been seven lepers and in one instance, a generation has been free, in the

Case of a daughter, and the disease has appeared in the next generation, that of her children -

As I have found no instance of anyone developing leprosy who has not been exposed to contagion, whose parents were healthy & whose ancestors were leprous - I can give no absolute proof that the disease is hereditary, for these conditions are necessary to establish it - but viewing the facts generally, and that leprosy is for the most part especially seen in certain families, that it may pass over one generation and appear in the next, it seems very probable that leprosy is hereditary & considerably so, when one considers that the contagiousness is not great.

In support of the view that Leprosy is contagious, I have been able to collect a number of cases which more or less go to prove this fact - There have however been no recent cases occurring in those whose ancestors have been free of taint -

From the Reports to the Provincial Govern-
ment, I have gathered some ^{nine} ~~ten~~ cases
supporting the contagious view -

(a) A Mrs. Fairman came to Chatham and
lived with a Scotch family named Brown,
Mrs F. became leprous and died in 1828,
in the Brown family, ~~she~~ appeared later &

(b) Wm Brown aet 16 became affected &
died 1835, also

(c) John Brown, a younger brother who died
about the same year

(d) Mary Sweegy, a servant in the family
was the fourth in this one home -

(e) - Whitmore, born on Saint John
River, went to Tracadie to work, became
leprous & died about 1827 -

(f) James Moore or Davis, father an American,
mother Irish when aet. 24 worked at
Tracadie when he developed leprosy
in 1846

(g) Alexander Stewart, a Scotch immigrant
had associated with Tracadie lepers,
his home was not in the affected area
died in Lazaretto 1848

(h & i) Jingleys, two nephews of Stewart
lived with him, died in Lazaretto

about 1850 -

Dr John Benson of Chatham informs me of one M^r Coombs, who laboured at the Acadie & died of Leprosy in 1870, he having attended him for a time -

In these men, there was a complete absence of family history as regards previous existence of leprosy - It is also to be noted that they were not French -

These cases prove pretty thoroughly that Leprosy is contagious -

The extent of this contagion does not seem to be great from the small number of examples - None of the nurses or washer women at the Lazaretto have fallen victims and although they take precautions yet are much exposed to contagion - None of the Indians have been known to become lepers but they do not come into close contact with the French, which seems to be necessary for the contagion to take place -

It seems reasonable to suppose that during the late and protracted

Stages, that the disease is more likely to be transmitted -

From 1868 to 1878, there were 56 admitted into Lazaretto & from 1878 to 1888 only 26, a marked diminution - This is certainly a great encouragement & inducement to persevere in the attempt to procure aggregation and isolation of lepers in a Lazaretto, which not prevents propagation of disease by production of families and by contagion -

Resumé

1. Leprosy affects the sexes equally -
2. Leprosy appears generally about 18-19 years, rather earlier in males -
3. Duration of life of lepers averages 8 to 9 years, rather longer in males -
4. Leprosy is not due to peculiarities of soil or climate
5. Leprosy is hereditary -
6. Leprosy is contagious -

References -

Records at Lazaretto, Tracadie
for Number, ages, sex, etc of patients
from which I formed tables.

Reports to Provincial government
gave some historical facts & some
cases of contagion -

Report by Dr. Jacké to Government
of Dominion of Canada

From which I obtained some dates
in connection with case of Margaret
Jones -