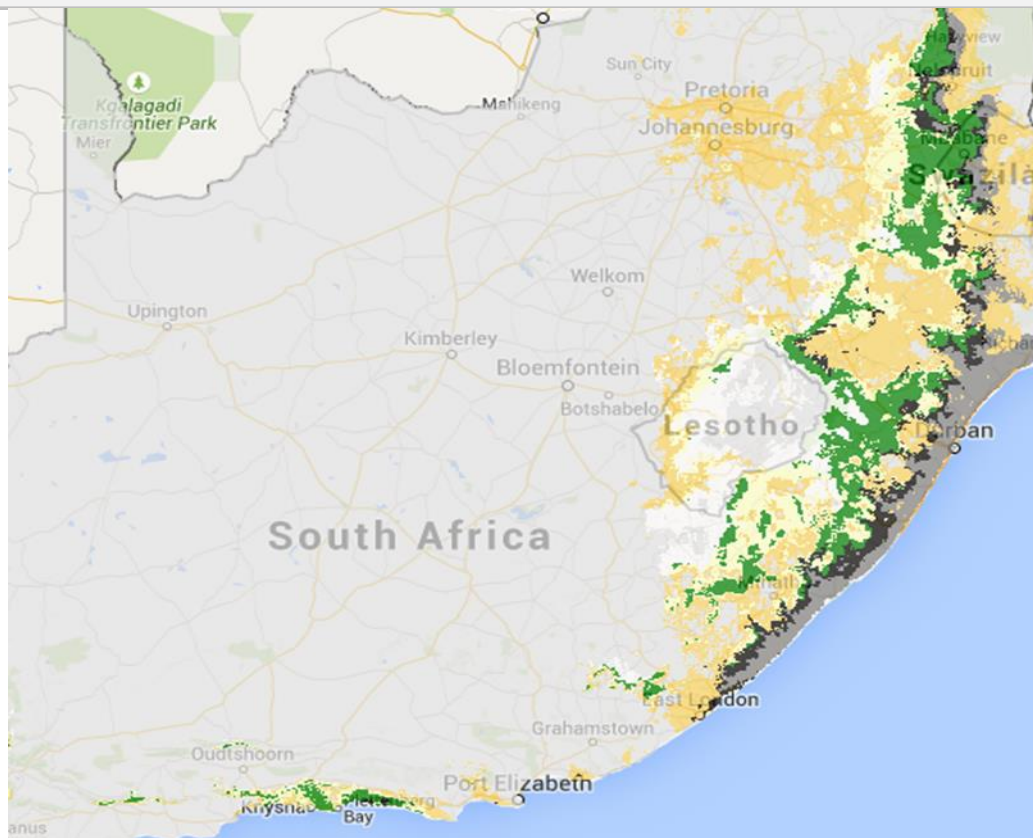


### Climatically Optimum Growth Areas of *Pinus patula*

**Legend**

- Pinus-patula Growth Areas
-  Optimum
  -  Moderate Risk: Mortality
  -  Moderate Risk: Drought
  -  Moderate Risk: Frost
  -  High Risk: Too Dry
  -  High Risk: Snow
  -  High Risk: Frost
  -  High Risk: Snow/Frost
  -  High Risk: Disease
  -  High Risk: Pest
  -  High Risk: Pest/Disease
  -  Slow Growth Rate
  -  Outside Climatic Bounds



Author(s): Derived from Schulze, R.E and Maharaj, M (2007)

Date: 2007

**Meta-Data**

<b>Title</b>	Climatically Optimum Growth Areas of <i>Pinus patula</i>
<b>File Name</b>	pin_pat
<b>Author(s)</b>	Derived from Schulze, R.E and Maharaj, M (2007)
<b>Publication Date</b>	2007
<b>Citation</b>	Schulze, R.E. and Maharaj, M. 2007. <i>Pinus patula</i> Growth Areas and Yield Estimation. In: Schulze, R.E. (Ed). 2007. South African Atlas of Climatology and Agrohydrology. Water Research Commission, Pretoria, RSA, WRC Report 1489/1/06, Section 18.7.
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<b>Abstract</b>	<p>*The dataset shows climatically optimum growth areas and yield estimates of <i>Pinus patula</i>. Yield estimates were derived from Schulze R.E. and Maharaj M. (2007)</p> <p>*Climatically optimum growth areas of <i>P. patula</i> occur in an arc inland of the coast from the northeast areas of the Eastern Cape, through KwaZulu-Natal and including a strip along this province's border with Lesotho and the Free State, the western third of Swaziland and into Mpumalanga. The major constraint on the inland side of this arc is a lack of rainfall, while on the coastal side of the arc temperatures are too high.</p> <p>*Mean Annual Increments of <i>P. patula</i>, at &gt; 20 t/ha/annum, are highest in an arc coastwards of the climatically optimum areas, where the trees tend to be vulnerable to heat related diseases. Away from the coast MAIs drop off into the 16 - 20 t/ha/annum range.</p>
<b>Keywords</b>	agriculture, biomass, growth areas, pinus patula, yield estimation
<b>Caveats</b>	<a href="http://bea.dirisa.org/resources/metadata-sheets/WP03_00_META_PIN_PAT.pdf">http://bea.dirisa.org/resources/metadata-sheets/WP03_00_META_PIN_PAT.pdf</a>
<b>Web Meta-Data</b>	
<b>Web Resource</b>	<a href="http://app01.saeon.ac.za:8082/geoserver/BEEH_grid/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=BEEH_grid:pin_pat&amp;styles=&amp;bbox=16.458333,-34.841667,32.908333,-22.141667&amp;width=512&amp;height=395&amp;srs=EPSG:4326&amp;format=application/openlayers">http://app01.saeon.ac.za:8082/geoserver/BEEH_grid/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=BEEH_grid:pin_pat&amp;styles=&amp;bbox=16.458333,-34.841667,32.908333,-22.141667&amp;width=512&amp;height=395&amp;srs=EPSG:4326&amp;format=application/openlayers</a>

#### Methodology/ Protocol

Processing/ Provenance	As described above
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#### Important Attributes

PIN_PAT	<i>Pinus patula</i> growth areas and yield estimation, t/ha
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#### References and Sources

[1]	Schulze, R.E. and Maharaj, M. 2007. <i>Pinus patula</i> Growth Areas and Yield Estimation. In: Schulze, R.E. (Ed). 2007. South African Atlas of Climatology and Agrohydrology. Water Research Commission, Pretoria, RSA, WRC Report 1489/1/06, Section 18.7.
[2]	<i>Pinus patula</i> Growth Areas and yield estimation: <a href="http://app01.saeon.ac.za:8082/geoserver/BEEH_grid/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=BEEH_grid:mai_ppa&amp;styles=&amp;bbox=16.458333,-34.841667,32.908333,-22.141667&amp;width=512&amp;height=395&amp;srs=EPSG:4326&amp;format=application/openlayers">http://app01.saeon.ac.za:8082/geoserver/BEEH_grid/wms?service=WMS&amp;version=1.1.0&amp;request=GetMap&amp;layers=BEEH_grid:mai_ppa&amp;styles=&amp;bbox=16.458333,-34.841667,32.908333,-22.141667&amp;width=512&amp;height=395&amp;srs=EPSG:4326&amp;format=application/openlayers</a>