

## QGIS Application - Feature request #17219

### Better description of bands

2017-09-29 09:11 AM - Paolo Cavallini

<b>Status:</b>	Closed	<b>Resolution:</b> fixed/implemented <b>Copied to github as #:</b> 25118
<b>Priority:</b>	Normal	
<b>Assignee:</b>		
<b>Category:</b>	GUI	
<b>Pull Request or Patch supplied:</b>	No	
<b>Easy fix?:</b>	No	
<b>Description</b>  Some multiband format (I have checked especialli GRIB) have a description in the metadata for the meaning of each band (e.g. wind speed 10 m above ground). In the layer properties > Style, only the band numbers are listed (band 1 etc.). This makes styling very difficult. It would seem reasonable to add the metadata to the band number, e.g.: Band 1 (wind speed 10 m above ground)		
<b>Related issues:</b> Related to QGIS Application - Bug report # 19586: Problem reading grib file <b>Closed</b> <b>2018-08-10</b>		

### History

#### #1 - 2017-10-02 01:24 AM - Nyall Dawson

- Status changed from Open to Feedback

Can you share one of these files?

#### #2 - 2017-10-02 09:09 AM - Paolo Cavallini

<http://www.faunalia.eu/~paolo/grib.zip>

Thanks.

BTW: I do not know whether this is a general issue, but the projection for this particular file (EPSG:4326) is not correctly interpreted.

#### #3 - 2018-01-09 01:01 PM - Paolo Cavallini

Misinterpretation of EPSG code confirmed with other GRIBs from other sources.

#### #4 - 2018-01-16 03:46 PM - Giovanni Manghi

- File Screenshot\_20180116\_144439.png added

Paolo Cavallini wrote:

| Misinterpretation of EPSG code confirmed with other GRIBs from other sources.

here on 2.18.\* and gdal 2.2.2:

both gdal (and qgis) read a custom CRS (+proj=longlat +a=6367470 +b=6367470 +no\_defs) but this definitely seems to reproject to the right place, see attached image.

2025-04-27

1/4

**#5 - 2018-01-16 04:04 PM - Paolo Cavallini**

Confirmed, thanks for checking. As mentioned in mailing list, GRIBS dowloaded and correctly visualized in ZyGrib are not projected correctly, see <http://www.faunalia.eu/~paolo/grib2.bz2>

This is outside the scope of the current ticket however.

**#6 - 2018-01-17 01:16 PM - Giovanni Manghi**

Paolo Cavallini wrote:

*Confirmed, thanks for checking. As mentioned in mailing list, GRIBS dowloaded and correctly visualized in ZyGrib are not projected correctly, see <http://www.faunalia.eu/~paolo/grib2.bz2>  
This is outside the scope of the current ticket however.*

gdalinfo reports messages like

Band 1206 Block=109x1 Type=Float64, ColorInterp=Undefined

Description = 0[-] SFC (Ground or water surface)

Un-handled possible ensemble section center 58 subcenter 0

Warning 1: Band 1206 of GRIB dataset is 130x99, while the first band and dataset is 109x89. **Georeferencing of band 1206 may be incorrect, and data access may be incomplete.**

NoData Value=9999

Metadata:

GRIB\_COMMENT=undefined [-]

GRIB\_ELEMENT=var155

GRIB\_FORECAST\_SECONDS=345600 sec

GRIB\_REF\_TIME= 1515456000 sec UTC

GRIB\_SHORT\_NAME=0-SFC

GRIB\_UNIT=[-]

GRIB\_VALID\_TIME= 1515801600 sec UTC

so I would say it is GDAL or zygrib problem.

**#7 - 2018-01-17 08:56 PM - Nyal Dawson**

- Resolution set to up/downstream

**#8 - 2018-01-18 08:33 AM - Paolo Cavallini**

- Resolution deleted (up/downstream)

We are mixing up things here, my fault.

1. the projection issue: unclear whether this is due to QGIS misinterpreting EPSG:4326 or Zygrib/GDAL providing invalid projection; I will do more research
2. wrong extent: brilliantly clarified by Giovanni, thanks
3. description of bands: remains valid, it's a QGIS GUI issue, possibly not too difficult.

Thanks all for feedback.

**#9 - 2018-01-18 11:24 AM - Paolo Cavallini**

**#10 - 2018-01-18 11:30 AM - Paolo Cavallini**

Projection issue seems due to Zygrib, in any case not to QGIS:

Driver: GRIB/GRIdDED Binary (.grb)

Files: ECMWF0100\_2017030100\_000.grb

Size is 181, 161

Coordinate System is:

GEOGCS["Coordinate System imported from GRIB file",

DATUM["unknown",

SPHEROID["Sphere",6367470,0]],

PRIMEM["Greenwich",0],

UNIT["degree",0.0174532925199433]]

Origin = (1.9500000000000000,50.049999999999997)

Pixel Size = (0.1000000000000000,-0.1000000000000000)

Corner Coordinates:

Upper Left ( 1.9500000, 50.0500000) ( 1d57' 0.00"E, 50d 3' 0.00"N)

Lower Left ( 1.9500000, 33.9500000) ( 1d57' 0.00"E, 33d57' 0.00"N)

Upper Right ( 20.0500000, 50.0500000) ( 20d 3' 0.00"E, 50d 3' 0.00"N)

Lower Right ( 20.0500000, 33.9500000) ( 20d 3' 0.00"E, 33d57' 0.00"N)

Center ( 11.0000000, 42.0000000) ( 11d 0' 0.00"E, 42d 0' 0.00"N)

**#11 - 2018-01-18 11:40 AM - Paolo Cavallini**

So we can go back to the original issue: showing in the name of bands also their description, as reported by GDAL, to make it easier for users to interpret and symbolize data.

**#12 - 2018-02-24 03:21 PM - Paolo Cavallini**

- Status changed from Feedback to Open

**#13 - 2018-08-10 09:56 AM - Saber Razmjooei**

- Related to Bug report #19586: Problem reading grib file added

**#14 - 2018-08-10 02:29 PM - Saber Razmjooei**

It works fine in QGIS master when loading the layer as mesh:

<https://issues.qgis.org/issues/19586>

<https://issues.qgis.org/attachments/download/13105/grib.png>

**#15 - 2018-08-13 10:42 AM - Giovanni Manghi**

- Status changed from Open to Feedback

**#16 - 2018-08-13 11:08 AM - Paolo Cavallini**

- Status changed from Feedback to Closed

- Resolution set to fixed/implemented

Confirmed, thanks.

Files

Screenshot_20180116_144439.png	1.2 MB	2018-01-16	Giovanni Manghi
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